

JRC SCIENCE FOR POLICY REPORT

ICT-Enabled Social Innovation to support the Implementation of the Social Investment Package

Mapping and Analysis of ICT-enabled Social Innovation initiatives promoting social investment in integrated approaches to the provision of social services: IESI Knowledge Map 2015'

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Abstract

This report presents the analysis of the 2015 Mapping of the project 'ICT-enabled Social Innovation to support the Implementation of the Social Investment Package' (IESI). It provides an enriched picture of the existing knowledge base and evidence of how ICT-enabled social innovation initiatives that promote social investment through integrated approaches to social services delivery can contribute to the policy objectives of the EU Social Investment Package (SIP). The SIP, in turn, supports the EU 2020 strategy goals in terms of inclusive growth and employment.

After introducing the policy and research background, the scope of the IESI research and the objectives of the 2015 mapping, the report provides an overview of the methodology followed for building the IESI inventory of ICT-enabled social innovation initiatives through a structured dynamic database and by conducting the mapping and analysis of a selected sample of 210 initiatives. In doing so it discusses the degree of deployment of ICT-enabled social innovations that promote social investment through integrated approaches to social services provision, providing insight into the levels and types of deployment achieved.

Further, the IESI conceptual framework which underpins the research and which has been used to guide the mapping and analysis of initiatives is discussed. Additional dimensions that would enhance the framework itself are proposed. Evolving theoretical approaches are taken into account in order to better explain the implications of ICT-enabled social innovation initiatives for social policy reforms. This is followed by an overview of the consolidated results of the analysis of the initiatives collected as part of the IESI mapping exercise in 2014 and 2015. The analysis presents the IESI Knowledge Map 2015, which aims to provide a better understanding of the main characteristics and patterns of the initiatives identified. Reference is also made to the different welfare systems and social services delivery models which characterise various EU countries in order to contextualise the potential role played by ICT-enabled social innovation to promote social investment.

The findings of specific thematic analyses conducted on a set of selected topics are then presented: 1) the role of social enterprise-driven ICT-enabled social innovation initiatives that support social services delivery; and the implications of ICT-enabled social innovation that promote social investment to support: 2) active inclusion of young people; and 3) active and healthy ageing and long-term care for older people, particularly as regards prevention, health promotion and rehabilitation.

Finally, conclusions deriving from the analysis of the mapping of the contribution made by ICT-enabled social innovation initiatives are outlined. This is complemented by an analysis of the gaps identified; the limitations of the current mapping exercise and recommendations for future research, as well as implications and possible directions for policy.

Acknowledgments

This report presents the results of the second 'round' of mapping conducted in 2015 as part of the IESI research by the JRC-IPTS in collaboration with supporting organisations and key stakeholders.

Mapping initiatives in the field of ICT-enabled social innovation promoting social investment through integrated approaches to social service delivery indeed is not an easy task as it involves exploring uncharted territories and investigating beyond the usual comfort-zones.

As such, this process has been a learning journey and as all adventures it allowed the 'IESI research team' at JRC-IPTS engage with many colleagues, experts and representatives of stakeholders who contributed in different capacities to the activities of inventory, mapping and analysis.

We call them the 'IESI community', and although it is not possible to name all of the members of such growing group of like-minded people across Europe, we are particularly grateful to all participants in the various IESI Experts and Stakeholders' consultation workshops, held in Brussels in November 2014 and February 2015 and in Seville in July 2015. These events gathered over 120 participants in total and allowed the IESI research team to discuss preliminary findings and exchange experiences with experts and peers building the growing IESI repository of knowledge. We would also like to thank all the representatives, experts and other stakeholders who helped us to identify and document ICT enabled social innovation initiatives across the EU and beyond.

In such exploratory journey the IESI research team at JRC-IPTS has been accompanied closer by a group of external experts, we call them the 'IESI-extended team', who contributed to the research in different manners. For this specific piece of work a special mention goes to the research group of The Young Foundation who under the leadership of Fiorenza Lipparini, in collaboration with the Zentrum für Soziale Innovation, and other experts and partners supported us in the building up of the IESI inventory and mapping.

A special 'thank you' goes to Jeremy Millard and Bastian Pelka, who acted as the expert reviewers of the Draft version of this report. Their combined external perspective gave some invaluable insights for the improvement for this final version of the Report.

We are also thankful to the colleagues from the IT Team at JRC-IPTS, in particular Jesus Vega-Villa and Sergio Romero-Villa, for their work in developing the IESI database and online platform that is the first building block for developing the 'IESI Knowledge Base'.

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Note

This report is based on the analysis conducted by the JRC-IPTS as part of the Administrative Arrangement for a research on 'ICT-Enabled Social Innovation in support to the Implementation of the Social Investment Package' between JRC-IPTS and DG EMPL (JRC N° 33268-2014-01 EMPL D.1).

For more information about the project see: <https://ec.europa.eu/jrc/en/iesi>

Abstract

This report presents the analysis of the 2015 Mapping of the project 'ICT-enabled Social Innovation to support the Implementation of the Social Investment Package' (IESI). It provides an enriched picture of the existing knowledge base and evidence of how ICT-enabled social innovation initiatives that promote social investment through integrated approaches to social services delivery can contribute to the policy objectives of the EU Social Investment Package (SIP) to support the achievement of the goals of the EU 2020 strategy in terms of inclusive growth and employment.

After having introduced the policy and research background outlining the overall objectives and scope of the IESI research and the aim of the 2015 mapping, the report provides an overview of the methodology followed for enriching the IESI inventory of ICT-enabled social innovation initiatives through a structured dynamic database and by conducting the mapping and analysis of a selected sample of 210 initiatives.

The report then updates the review of the literature and practice in domains related to the role and impact of ICT-enabled social innovation promoting social investment, with a specific focus on the area of active and healthy ageing and long-term care for older people, particularly the theme: prevention, health promotion and rehabilitation. In reviewing the state of the art the report discusses the degree of deployment of ICT-enabled social innovations that promote social investment through integrated approaches to social services provision in terms of geographical spread and different areas of social services covered, providing insight into the levels and types of deployment achieved.

Further, the IESI conceptual framework which underpins the research and which has been used to guide the mapping and analysis of initiatives is discussed, proposing additional dimensions in order to enrich the framework of analysis itself. Evolving theoretical approaches are taken into account, the aim being to better explain the implications ICT-enabled social innovation initiatives have or may have for social policy reforms. This is followed by an overview of the consolidated results of the analysis of the initiatives collected as part of the IESI mapping exercise in 2014 and 2015. The analysis presents the IESI Knowledge Map 2015, which aims to provide a better understanding of the main characteristics and patterns of the initiatives identified, according to the IESI conceptual framework. Reference is also made to the different welfare systems and social services delivery models which characterise various EU countries in order to contextualise the potential role played by ICT-enabled social innovation to promote social investment through integrated approaches to social services delivery.

The findings of specific thematic analyses conducted on a set of selected topics: 1) the role of social enterprise-driven ICT-enabled social innovation initiatives in support of social services delivery; and the implications of ICT-enabled social innovation that promote social investment through integrated approaches to social services delivery in support of: 2) active inclusion of young people; and 3) active and healthy ageing and long-term care for older people, particularly as regards prevention, health promotion and rehabilitation are then presented.

Finally, the main conclusions deriving from the analysis of the mapping in terms of the contribution made by ICT-enabled social innovation promoting social investment through integrated approaches to social services delivery to the implementation of the SIP are outlined. This is complemented by an analysis of the gaps identified; the limitations of the current mapping exercise and recommendations for future research, as well as implications and possible directions for policy.

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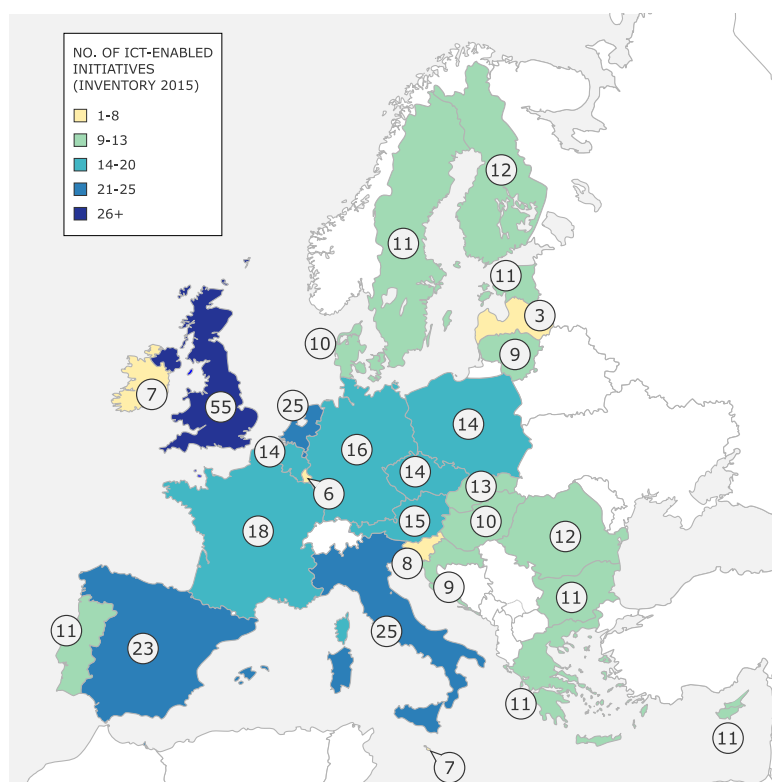
Executive Summary

This report presents the analysis of the 2015 Mapping of the project 'ICT-enabled Social Innovation to support the Implementation of the Social Investment Package' (hereafter IESI). It provides an enriched picture of the existing knowledge base and evidence of how ICT-enabled social innovation initiatives that promote social investment through integrated approaches to social services delivery can contribute to the policy objectives of the EU Social Investment Package (SIP). This package, in turn, will support the achievement of the goals of the EU 2020 strategy in terms of inclusive growth and employment.

During the first phase of the IESI mapping in 2014, a conceptual and analytical framework was developed to serve as a structure for the mapping and analysis of ICT-enabled social innovation that promotes social investment through integrated approaches to social services provision. The framework was used to analyse 70 examples of initiatives selected from an inventory of 140 initiatives gathered through desk research and consultations with experts. The resulting analysis, the IESI Knowledge Map 2014, helped us to explore how innovations in the areas of Personal Social Services of General Interest (PSSGI), that are both ICT-enabled and social in their ends and means, have changed the landscape of service provision from a service integration perspective.

The second 'round' of the IESI Mapping conducted in 2015 set out to better structure the field of analysis. It integrated the IESI knowledge base to define a sample of initiatives that illustrate different welfare systems. Hence, it provided a more accurate overview of the phenomenon under investigation across the EU landscape. It increased the IESI inventory to 280 initiatives, which represent all EU28 Member States and some countries that are considered in the vanguard of the field under analysis, and also all the categories of PSSGI.

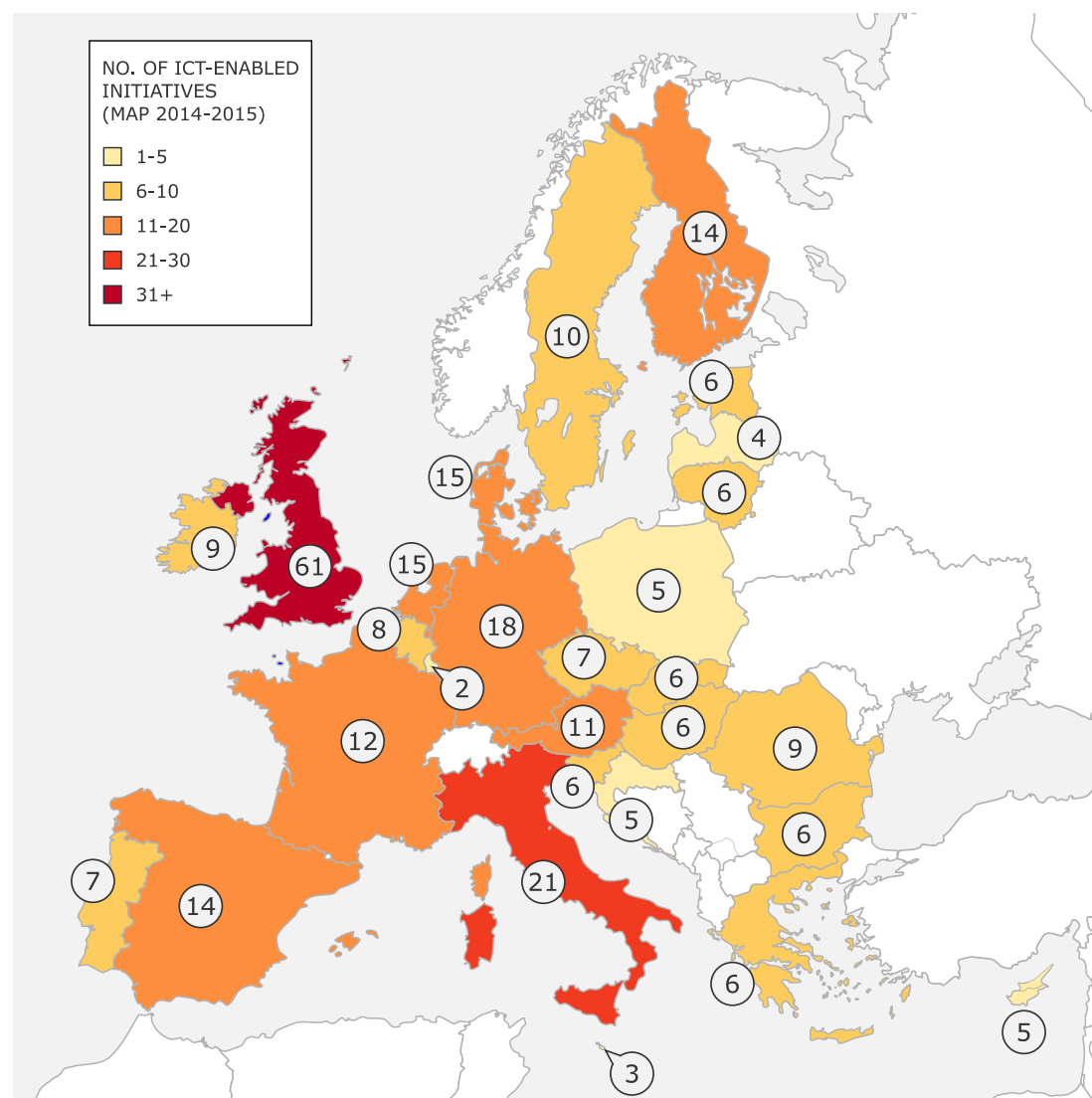
Figure 1: Inventory 2015 (n=280)



Source: own elaboration.

From the inventory generated, 140 initiatives were further documented and analysed together with the 70 initiatives already mapped in 2014. This information makes up **the IESI knowledge map for 2015, composed of a total database of 210 ICT-enabled social innovation initiatives which promote social investment through integrated approaches to social services delivery and also present evidence of impact achieved.** Here, it should be mentioned that the IESI research clearly adds value because it pays special attention to how evidence of impact is measured. **The IESI knowledge base is in fact structured around the 'evidence base' of the initiatives** which, given the specific policy-orientation of the research, are intended to contribute directly to EU policy design and to support Member States in the implementation of their SIP-related policies.

Figure 2: 2015 Mapping (2014 and 2015 - n=210)



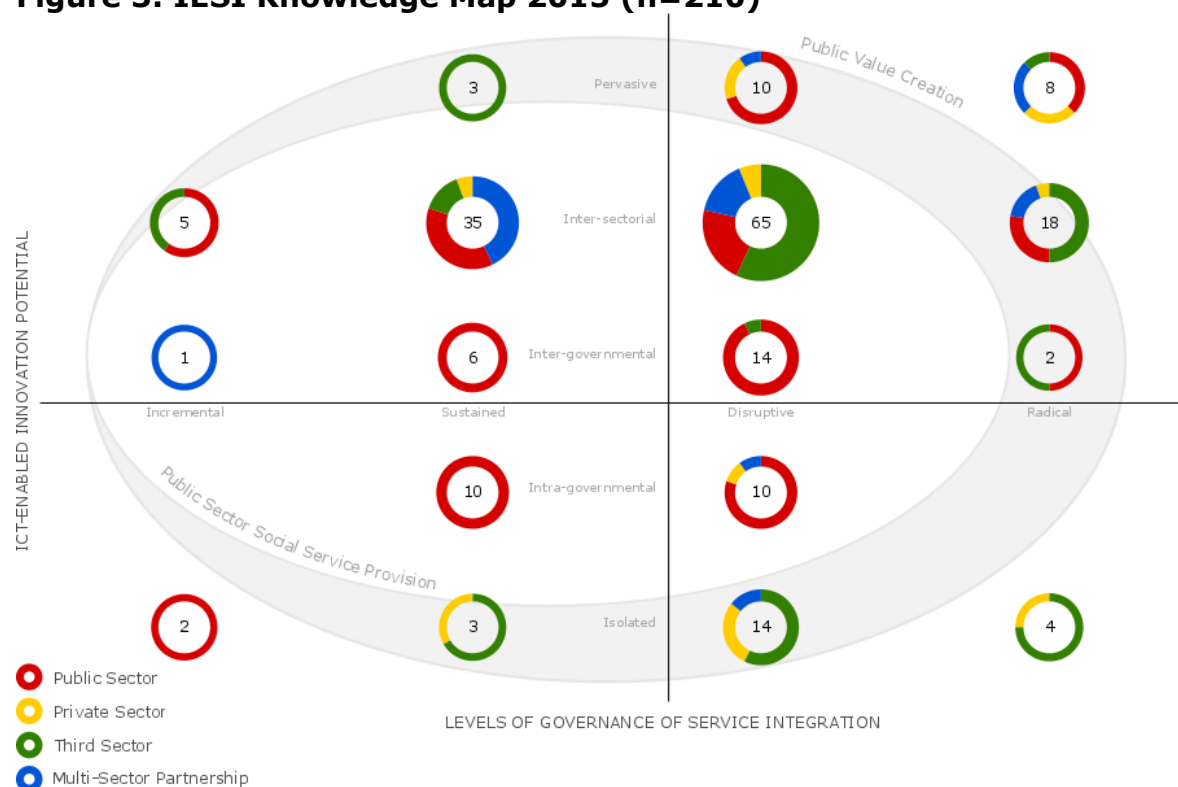
Source: own elaboration.

In this regard, an important element of the IESI project is the **design and development in-house of a dynamic relational-database and online interface.** This allows the IESI research team at JRC-IPTS, colleagues from other Policy DGs and EU institutions, and external experts as collaborators and representative of key stakeholders, to manage the knowledge base created in an interactive and user friendly manner. In 2016, more advanced functionalities will be added to the IESI platform in order to make it an online repository and knowledge base that supports the SIP implementation, as 2020 is already on the horizon.

Building the online IESI community, together with traditional consultations with experts, stakeholders and policy-makers in different scientific and policy events, have also served to raise interest in the potential of ICT-enabled social innovation. The IESI project can help EU policy to address current societal challenges, for example the **modernisation of social protection systems**. It has also increased stakeholders' awareness of the need to strengthen capacities and knowledge in the area of impact evaluation for evidence-base policy-making. Up until now, **the lack of systematic monitoring and assessment of interventions has hampered the possibility of proving that an initiative has been successful. Thus, IESI has facilitated scalability, replicability or transferability of practices and policies by demonstrating the impacts of initiatives and the factors that affect them.**

We now focus on the **IESI 'Knowledge Map'** for 2015, which includes initiatives mapped in both 2014 (n=70) and 2015 (n=140). It shows that **it seems to be at the inter-sectoral level of governance of service integration that 'things happen'**. Moreover, **while third sector organisations appear to lead in disruptive and radical ICT-enabled social innovation, the public sector and multi-sector partnerships are key for achieving sustained/organisational ICT-enabled change.**

Figure 3: IESI Knowledge Map 2015 (n=210)



Source: own elaboration.

Clearly **a more detailed analysis is required to better understand emerging patterns, drivers and barriers of various groups of initiatives, according to specific PSSGI, policy objectives or target groups addressed, as well as different governance models and domains of operation.** For this purpose, the dataset was also analysed thematically, highlighting the importance of initiatives across different welfare clusters driven by social enterprises and specific policy actions. These targeted groups of people which are particularly important from a social investment perspective, as they promote active inclusion of young people and active, healthy ageing and long-term care for older people.

It is important to underline that the 2015 mapping exercise, building on the results of the first phase of the research, aimed to gather initiatives that had a more **'systemic effect'**. Because of the importance of the systemic problems afflicting European social systems, there is a pressing need to modernise the social protection architecture. Therefore, the sample of initiatives mapped - though not representative nor significant in statistical terms - is analysed from the perspective of the welfare state regimes. In this respect, **there is extraordinary variety among the 28 EU Member States in terms of welfare system models and stakeholders involved. Their levels of ICT adoption also vary considerably, and this influences the quantity and quality of current ICT-enabled social innovation initiatives, and the possible or actual barriers to and incentives for their creation and take up.** Though it is impossible at this stage to establish any direct link between welfare typologies and density/characteristics of ICT-enabled social innovation initiatives, our analysis seems to indicate that the primary areas of activities and policy priorities differ widely across welfare typologies. However, certain categories of beneficiaries, especially young people, are a priority across Europe.

Interestingly, **high levels of social innovation seem to contribute to the global strength of the initiatives more than high levels of ICT-enabled innovation.** This is confirmed not only by the high number of strong initiatives to be found in Nordic and Anglo-Saxon countries and by the relatively low number of strong initiatives in the Central and Eastern European samples, but by the surprisingly high number of strong initiatives in the Mediterranean cluster. This might be because **social innovation is a powerful means of achieving the integration of services across levels and types of governments.** It facilitates partnerships with third sector organisations and private service providers and helps to achieve three of the most widespread policy objectives targeted by the initiatives in the sample, i.e. increasing access and take-up of services; improving their quality; and reaching out to the most disadvantaged.

Although not conclusive, **the analysis of the IESI 2015 mapping has laid the foundations for further research to meet the need to 'contextualise' the analysis in different welfare systems and social services delivery models.** At the same time, the IESI conceptual and analytical framework designed in 2014 has been revisited in order to look at possibly interesting relationships between the specific dimensions of the IESI framework. These relationships have been linked to existing theories and studies - which were only partially addressed during its original conceptualisation. In a similar vein, two further variables have been introduced into the mapping to help us to approximate the maturity of initiatives in terms of 1) their overall level of ICT-enabled social innovation potential, and 2) how strong the evidence of policy-relevant outcomes to these initiatives is. This analysis serves primarily to inform further research. However, correlating these variables **it does seem that third sector-led initiatives and multi-stakeholder partnerships have higher levels of social innovation, while public sector-driven interventions may be associated with the growing efforts in social policy reforms and innovation in the public sector.**

However, if we look at the two newly-introduced variables from the point of view of welfare typologies, we notice that countries where the public sector plays a leading role tend to perform better. This might be due to the fact that **the main driver of ICT-enabled social innovation is the proactive role played by the public sector in catalysing relevant public, private and third sector partners.** Neither private nor third sector partners can achieve as much, when working on their own or with limited involvement of mainstream public service providers. This seems to be confirmed by our analysis of the mapped initiatives, where it appears that **the phenomenon of ICT-enabled social innovation is emerging across the entire EU,** becoming established in major EU countries in southern, continental and northern Europe.

In terms of **policy implications**, an explicit objective of the IESI research was to support the implementation of the Social Investment Package. This was done by collecting and analysing evidence-based initiatives to better understand the potential of ICT-enabled social innovation to strengthen integrated approaches to social services delivery. The ultimate aim of the study is to provide concrete examples of successful initiatives that are innovative in social policy design and social services delivery. Thus, **the study contributes to the current debate on the modernisation of European social protection systems by providing well documented initiatives, which could be scaled-up, replicated or transferred all across EU Member States.**

It is in this context that **ICT-enabled social innovation can be understood as an opportunity to promote social investment through integrated approaches to social services delivery.** It can also offer considerable support to the modernisation of social protection systems across and between the EU Member States. It is therefore suggested that **policy should aim to sustain the innovative efforts emerging all across Europe through dedicated interventions and funding schemes**, such as the Employment and Social Innovation Programme (EaSI). Furthermore, the intrinsic characteristics of ICT-enabled social innovation, its multi-partnership nature and the open collaborative process underlying its functioning, together may serve as a powerful catalyst. **It can form an instrument to attract private investment into welfare services through the establishment of new inter-sectorial governance models.** Moreover, it can provide the means to use available public resources more efficiently through the involvement of various stakeholders in innovative service delivery mechanisms, while at the same time renewing social policy design and implementation.

Clearly, the three-year IESI research project only contributes in a small way to addressing the **complex social systems dynamics** involved. However, the fact that this exercise gathers evidence-based ICT-enabled social innovation initiatives and assesses their impact with a view to scaling up, replicating and transferring them across EU Member States, makes it a powerful tool to support the implementation of the SIP.

In 2016, it is expected that the IESI project will add more initiatives to the inventory, bringing the total up to 600. A mapping sample of 300 relevant initiatives will be analysed. These efforts will be complemented by a number of in-depth case studies, and thematic analyses on specific policy issues considered of particular importance. For this purpose, the IESI conceptual framework will be further validated by applying it on the basis of its application to a larger set of initiatives, which will be further balanced in terms of geographical and social services areas covered. Moreover, some additional dimensions suggested in this report as possible 'extensions' of the IESI analytical framework will be operationalised to allow us to comprehend the phenomenon under investigation better. **The consolidated analysis of the IESI mapping should allow us to understand the evolutionary development of ICT-enabled social innovation initiatives so that policy development can be informed.** The IESI Research Team at JRC-IPTS will benefit from the lessons learned in the previous and current round of mapping and a number of improvements will be made in order to guarantee the successful achievement of the goal. For example, a specific communication campaign will be designed and launched in the first half of 2016, to allow enough time for gathering data from practitioners and policy-makers. Networks and key stakeholders will be offered improved visibility at European level to encourage them to contribute to the collection of cases. For instance, a 'IESI Prize' may be promoted, dedicated to initiatives put forward by practitioners. In addition to this, the research will target initiatives at the regional and local levels, through the in-depth analysis of a selected number of 'local ecosystems'. This will allow us to study the dynamics across sectors, the barriers and the enabling factors for innovation and social change to be supported through appropriate policy options.

1. Introduction

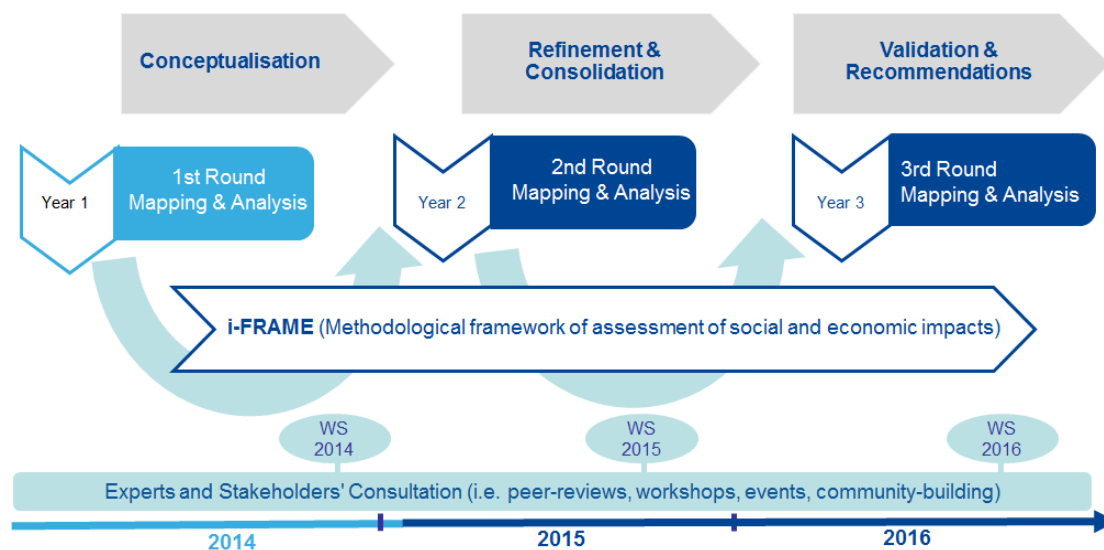
1.1. Policy and Research Background

In February 2013, the European Commission launched the **Social Investment Package (SIP)**¹ to support the implementation of the EU 2020 strategy. The SIP Communication urges Member States to prioritise social investment and the modernisation of their welfare systems in order to address unemployment, poverty and social exclusion challenges brought about by the economic crisis and sustainability challenges posed by the ageing population trends.

Social innovation is an essential element of the SIP as it can improve the efficiency of social policies and their effectiveness in addressing societal challenges and also facilitate life-long investment in human capital. The SIP emphasises that the potential of social innovation is further increased by the growing range of available **innovative solutions based on Information and Communication Technologies (ICTs)**. However, these solutions only materialise rapidly on the ground when social innovation is encouraged to take full advantage of them.

In this context, the DG EMPL and the Information Society Unit at JRC-IPTS² have entered into an Administrative Arrangement to conduct a research project entitled '**ICT-enabled Social Innovation in support of the Implementation of the Social Investment Package**' (**IESI**). IESI is a three-year research project designed according to three interrelated Work Packages, namely: systematic mapping (WP1), methodological framework of analysis of impacts (WP2 – the i-FRAME) and thematic analysis/case studies (WP3). Figure 4 describes schematically the IESI research design³.

Figure 4: Research Design



Source: own elaboration.

¹ Communication from the Commission to the European Parliament, the Council, the European and Social Committee and the Committee of the Regions: Towards Social Investment for Growth and Cohesion – including implementing the European Social Fund 2014-2020. COM(2013) 83 final. See: <http://ec.europa.eu/social/main.jsp?catId=1044>

² DG EMPL is the European Commission's Directorate General for Employment, Social Affairs and Inclusion. The Institute for Prospective Technological Studies (IPTs) is one of the seven research institutes of the European Commission's Joint Research Centre (JRC).

³ This report presents the details of the methodology, analysis and its overall and thematic results of the "2nd Round Mapping & Analysis" which relied heavily on the conceptual and analytical framework created during the first year, but aimed to validate and further enrich it.

The **key goal of IESI** is to support the implementation of the EU Social Investment Package (SIP) by investigating how ICT-enabled Social Innovation can support social investment policies.⁴

The project aims to:

1. Provide a deeper understanding of how EU Member States can make better use of ICT-enabled social innovation to implement the actions suggested in the SIP.
2. Contribute to building evidence-based input to social policy innovation by gathering knowledge, providing results of a structured analysis of initiatives and sharing successful experiences implemented in EU Member States.
3. Develop a methodological framework of analysis of the impacts generated - from micro to macro level - by ICT-enabled social innovation initiatives promoting social investment.

Overall, it is expected that this research will help us to better understand how ICT-enabled social innovation initiatives can make the targeting of benefits and services better. It can do this by improving the management, provision and coordination of services; by designing high-quality and cost-effective services which meet the needs of citizens; and by supporting access to and take-up of social services, for instance through simpler procedures, better information or one-stop-shops.

The projects' research outcomes should help policymakers and practitioners, to use ICT-enabled social innovation to modernise EU welfare states, providing better and more efficient social services and increasing the skills, wellbeing and resilience of EU citizens. The documented research design, its proposed terminology and theoretical framework and findings could moreover contribute to the growing scientific interest and debate about ICT-enabled social innovations in the field of social services.

To achieve the above outcomes, the following activities will be completed during the three-year research project:

- Review of relevant literature, policies, theoretical approaches and the level of deployment and integration of ICT-enabled service provision in the EU Member States.
- Collection and documentation of relevant examples of initiatives across the EU and beyond, including countries considered to be in the vanguard of the policy areas under investigation. This data will be used to analyse the services provided by various stakeholders and intermediaries, from the public, private and third sectors, with a specific focus on the role and relationships among them, and their network effects.
- A search for insights from EU Members States and an assessment of current initiatives in order to better understand the nature and impact of ICT-enabled social innovation in support of social investment, its drivers and barriers, determinants, and diffusion paths.

With regard to the **scope** of the research, the starting point for the analysis is to address **Personal Social Services of General Interest (PSSGI)**⁵ i.e. the services that respond to vital human needs, contribute to non-discrimination and create equal opportunities. These have been classified according to the following 10 types:

⁴ For a more detailed presentation of the IESI conceptual and analytical framework, including the definition of ICT-enabled social innovation developed as part of this research and the concept of Personal Social Services of General Interest (PSSGI) see the JRC Science and Policy Report (Misuraca et al. 2015) available at <http://skp.jrc.cec.eu.int/skp/showPub?id=JRC97467>.

⁵ PSSGI are key means used by European welfare states to realise social, health and employment policy objectives (see JRC Science and Policy Report, 2015b, Misuraca et al, for more details on the role and functions of PSSGI).

1. Childcare
2. Education and training
3. Social assistance
4. Social care
5. Social housing
6. Employability
7. Employment
8. Social inclusion/participation
9. Civic engagement
10. Active and healthy ageing and long-term care.

More specifically, the research studies the contribution PSSGI make to achieving the following priorities, defined according to specific objectives of the SIP⁶:

- From the **service provision perspective**:
 - Increase social protection systems productivity by adopting an efficient and effective perspective, through organisational reform and procedural simplification/reengineering).
 - Improve access and take up of services, including personalised support based on users' specific conditions.
 - Increase quality and cost-effectiveness of services and design policies better to meet the needs of final beneficiaries.
- From the **beneficiary's perspective**: ⁷
 - Promote active inclusion interventions, with a specific focus on those most distant from the labour market.⁸
 - Facilitate more inclusive labour markets, especially through supporting intermediaries (e.g. Public Employment Services, Public Social Services and other social actors).
 - Support inclusion, education and training, employment and more general civic engagement, particularly of disadvantaged groups or people at risk of poverty or social exclusion.
 - Promote access to and use of early childhood education and care, by improving the means available to parents that would allow them to combine raising children with work, and at the same time, support the wellbeing of children.⁹

⁶ The research addresses a selected number of the policy objectives of the SIP. These have been agreed with DG EMPL in the inception phase (see IESI Research Design and Methodological Approach, JRC-IPTS Working Document, 2014).

⁷ In accordance with social innovation theory and practice, beneficiaries are considered in the IESI operational frameworks, as active users – sometimes even co-designers and co-producers – of services which should contribute to preserve or enhance their capacities. Engaging beneficiaries in the planning, production, delivery and evaluation of services is also key to ensure that these services are proportionate and well suited to their needs, therefore increasing services take-up and efficiency.

⁸ SWD(2013)39 final, 'Follow-up on the implementation by Member States of the 2008 European Commission recommendation on active inclusion of people excluded by the labour market.

⁹ See Commission Recommendation 'Investing in Children: breaking the cycle of disadvantage' C(2013)778 final.

Moreover, given the importance of the topic and the need to address the challenges posed by the ageing population, the research places special emphasis on the area of active and healthy ageing and long-term care for older people as one of the subsets of the broader concept of PSSGI. Thus the IESI research addresses the following specific objectives of the SIP relevant to this area:

- From the **service provision perspective**:
 - To improve access to and take up of services.
 - To improve and ensure the quality of care delivery.
 - To support integrated care, including informal care in the delivery chain.
 - To raise the productivity of formal and informal care delivery.
 - To increase employment in the care sector.
- From the **beneficiary's perspective**:
 - To increase the capacity of older people to manage self-care and independent living at home.
 - To reduce the incidence and prevalence of frailty and disability, through active and healthy ageing, prevention and promotion of physical and mental health, and rehabilitation, while at the same time supporting formal and informal carers.

Therefore, the IESI research focuses on two interrelated policy areas, namely:

- **Integrated approaches to the provision of social services.** The research addresses initiatives that are related to integrated approaches to the provision of all PSSGI. More specifically, the research investigates the role of ICT-enabled innovations and their capacity to improve the integration/coordination of services delivered by various stakeholders, including public administrations at national and sub-national level, intermediary actors, and organisations from the private and third sectors.
- A specific focus on ICT-enabled innovation initiatives promoting social investment in the area defined as **active and healthy ageing and long-term care for older people**. This includes initiatives that are related to a) the process of optimising opportunities for health, participation and security in order to enhance quality of life as people age (Active and Healthy Ageing - AHA) and b) services and assistance over an extended period of time for older people who depend on help with basic or instrumental activities of daily living (Long-Term Care for older people - LTC).¹⁰

1.2. Objectives of the 2015 Mapping

Overall, the IESI research aims to explore the nature of ICT-enabled social innovation initiatives which promote social investment through integrated approaches to social services provision. It analyses the impacts they have - or can have - on supporting social investment policies and the modernisation of social protection systems in the EU.

To this end, as part of **Work Package 1 - 'Systematic mapping'**, the research systematically collects evidence-based knowledge on relevant initiatives in the areas related to **Personal Social Services of General Interest (PSSGI)** in general and with a specific focus on active and healthy ageing and long-term care for older people.

¹⁰ For the scope of this research, this area is further divided into three themes according to the main EC policy objectives, namely: 1) integrated care; 2) independent living; and 3) prevention, health promotion and rehabilitation.

For this purpose, according to the IESI conceptual framework **ICT-enabled social innovation** is defined as follows¹¹:

'A new configuration or combination of social practices providing new or better answers to social protection system challenges and needs of individuals throughout their lives, which emerges from the innovative use of Information and Communication Technologies (ICTs) to establish new relationships or strengthen collaborations among stakeholders and foster open processes of co-creation and/or re-allocation of public value'.¹²

More specifically, the research focuses on exploring how different ICT-enabled social innovations contribute by enhancing social service delivery through **integrated approaches**. A current trend in social services reform, in fact, is the move towards a greater integration of service provision, so special efforts are being made by countries around the world, and EU Member States in particular, to increase the coordination of operations within their social services systems with the overall aim to improve efficiency and produce better outcomes for the beneficiaries.

Integration of services refers to different approaches to improving coordination between services in order to enhance outcomes for their users (Council of Europe, 2007). An OECD study on social services (OECD, 2011) confirmed that better access to integrated services in healthcare, childcare, housing and care for older people contributes significantly to reducing inequality in society and thus can reduce the level of poverty across various segments of the society.

In this respect, social innovation - and more concretely ICT-enabled social innovation - can provide an important contribution to social policy reform, providing new/better/different ways of integrating the provision of social services. As a matter of fact, we are in an exciting period of innovation characterised by schemes based on traditional and emerging ICTs, new funding models, and a more dynamic relationship between governments, citizens, and service providers from the private and not-for-profit sectors (KPMG-Mowat 2013).

The definition of **services integration** adopted in this research is thus the following:

'The increased coordination of operations across traditional functional units in the public sector, and also across other non-public sector providers, the aim being to put the final users/beneficiaries (including intermediaries) in the centre and treat their needs holistically'.

The **unit of analysis** investigated in the research is:

'Policy relevant experiences and initiatives which involve ICT-enabled innovations in designing and implementing services, systems or social policies more efficiently and effectively, and which address the final beneficiaries, intermediary actors or public administrations'.¹³

The key question addressed by the IESI Mapping over the entire period of research is:

RQ1 *How can ICT-enabled social innovation support the implementation of policies which promote social investment through integrated approaches to social services delivery?*

¹¹ See JRC Science and Policy Report, Misuraca et al, 2015b.

¹² We refer to social practice as the term used in psychology theory and referring to the phenomenon that seeks to determine the link between practice and context within social situations.

¹³ We refer to this unit of analysis with the term 'initiatives'. See chapter 2 for details on the criteria for identifying and selecting initiatives in the Knowledge map (inventory and mapping).

The following sub-questions are investigated as part of the mapping component of the research, including this second stage of it, out of the three overall mapping-stages: ¹⁴

SRQ1 What types of ICT-enabled innovation initiatives that promote social investment through integrated approaches to social services delivery are being implemented to support social policy reform and the modernisation of social protection systems?

SRQ2 Which areas and target groups of social service provision are most supported by ICT-enabled social innovation initiatives promoting social investment through integrated approaches to social services delivery?

SRQ3 What is the degree of deployment of ICT-enabled innovation initiatives that promote social investment through integrated approaches to social services delivery to support social policy reforms and the modernisation of social protection systems in the EU?

SRQ4 Which concrete initiatives involving ICT-enabled innovations that promote social investment through integrated approaches to social services delivery to support social policy reform and the modernisation of social protection systems have been implemented and have evidence of outcomes generated?

During the **first phase of mapping of the IESI project, in 2014**, following a comprehensive review of the state of the art in the domain, a **conceptual and analytical framework** was developed to serve as a structure for mapping and analysis of ICT-enabled social innovations that promote social investment through integrated approaches to social services provision. The framework was used to analyse **70 examples** of these ICT-enabled social innovations that were selected from an inventory of 140 initiatives gathered through desk research and consultations with experts.

The resulting analysis, the **IESI Knowledge Map 2014**, primarily focused on understanding how innovations in selected areas of personal social services of general interest, that are both ICT-enabled and social in their ends and means, have changed the landscape of service provision from a service integration perspective. However, the examples that were mapped in the first phase did not constitute a representative sample of the wealth of ICT-enabled social innovation initiatives in social services across Europe and several limitations were identified.¹⁵

The **second 'round' of the IESI Mapping conducted in 2015** set out to address and overcome these limitations and better structure the field of analysis. In particular, initiatives gathered during this phase of the research aimed to integrate the IESI knowledge map in order to define a sample of initiatives that illustrate the different welfare systems in order to provide a more accurate overview of the phenomenon under investigation across the EU.

The objective of the 2015 mapping was thus to further enrich the existing knowledge base by identifying, selecting and documenting additional initiatives, particularly in areas insufficiently covered in the previous mapping. The analysis of the new set of initiatives mapped, the **IESI Knowledge Map 2015**, serves to further validate the conceptual and analytical framework of the IESI project. It helps us to understand better how ICT-enabled social innovation initiatives that promote social investment through integrated approaches to social services delivery can contribute to better achieving the policy objectives of the EU 2020 strategy and the Social Investment Package (SIP).

¹⁴ Other research questions defined in the are addressed in other components of the research.

¹⁵ See JRC Science and Policy Report, Misuraca et al, 2015b.

1.3. Structure of the report

This report presents the results of the 2015 IESI mapping and analysis of ICT-enabled social innovation initiatives that promote social investment through integrated approaches to social services delivery.¹⁶ The report is structured as follows:

- **Chapter 1** introduces the policy and research background, the overall objectives and scope of the IESI research, also outlining the aim of the 2015 mapping.
- **Chapter 2** provides an overview of the methodology followed for enriching the inventory of ICT-enabled social innovation initiatives through a structured database and by conducting the analysis of a selected sample of initiatives.
- **Chapter 3** updates the review of the literature and practice in domains related to the phenomenon under investigation. A specific focus is given to the theme: prevention, health promotion and rehabilitation, which was not included in the 2014 review of the state of the art.
- **Chapter 4** discusses and 'extends' the IESI conceptual framework which underpins the research and which has been used to guide the mapping and analysis of initiatives. Evolving theoretical approaches are taken into account, the aim being to better explain the implications ICT-enabled social innovation initiatives have or may have for social policy reforms.
- **Chapter 5** provides an overview of the consolidated results of the analysis of the initiatives collected as part of the IESI mapping exercise in 2014 and 2015. The analysis presents the IESI Knowledge Map 2015, which aims to provide a better understanding of the main characteristics and patterns of the initiatives identified, according to the IESI conceptual framework. Reference is also made to the different welfare systems and social services delivery models which characterise various EU countries in order to contextualise the potential role played by ICT-enabled social innovation to promote social investment.
- **Chapter 6** presents the findings of specific thematic analyses conducted on a set of selected topics: 1) the role of social enterprise-driven ICT-enabled social innovation initiatives in support of social services delivery; and the implications of ICT-enabled social innovation that promote social investment through integrated approaches to social services delivery in support of: 2) active inclusion of young people; and 3) active and healthy ageing and long-term care for older people, particularly as regards prevention, health promotion and rehabilitation.
- **Chapter 7** discusses the main conclusions deriving from the analysis of the mapping in terms of the contribution made by ICT-enabled social innovation to the implementation of the SIP. It also provides an analysis of the gaps identified; the limitations of the current mapping exercise and recommendations for future research, as well as outlining implications and possible directions for policy.

Annex: As a separate document is reported the '**IESI Knowledge Map 2015 - Booklet**', which includes the summary of the initiatives mapped in 2015.

¹⁶ As anticipated, a special focus on active and healthy ageing and long-term care for older people is included in the IESI research. In this regard, this report integrates in a single document the IESI project deliverables D1.1.2 and D1.2.2 foreseen according to the Administrative Arrangement between JRC-IPTS and DG EMPL. These deliverables are the Mapping Annual Reports, which focus on active and healthy ageing and long-term care for older people (D1.1.2) and on integrated approaches to social services delivery (D1.2.2) respectively. Nevertheless, and despite the fact that a common methodological approach has been followed (see Chapter 2), this distinction in the analysis of the update of the review of the state of the art (§ 3.2) and a specific thematic analysis on the topic of active and healthy ageing and long-term care for older people is maintained and identifiable in the report (see Chapter 5 and § 6.3).

2. Methodology

This Chapter provides an overview of the methodology approach followed for enriching the IESI inventory of ICT-enabled social innovation initiatives through a structured dynamic database and conducting the mapping and analysis of a selected sample of such initiatives.

In the first phase of the IESI research conducted in 2014, three main outcomes have been achieved, all of them providing solid initial foundations for understanding how ICT-enabled social innovation in the EU member states could contribute to better and more effective social services provision as well as to effective social policy reforms: the implementation of policy aims defined in the Social Investment Package and targets of the Europe 2020 Strategy (JRC Science and Policy Report, Misuraca et al., 2015).

These three foundations, namely 1) the review of the state of the art in the field under investigation; 2) the development of a conceptual and analytical framework guiding the mapping and analysis; and 3) the 'IESI Knowledge Map' for interpreting the initiatives mapped, were all developed through a literature review and a data collection and analysis. While the work done was systematic, based on a rigorous scientific methodology and its results were well received by policymakers, members of the scientific community and representatives of providers and users of social services, none of the three foundations were considered as completed and final by the IESI research team. Their aim was to facilitate the setting of foot on the field under investigation, and once the basics are right and coherent permit the launch of a second phase, much wider in its scope and scale. In this second phase of the IESI project a new and more ambitious data collection was carried out in order to find and document ICT-enabled social innovation initiatives throughout all the 28 member states of the EU and to document in-depth those that could show evidence about their capability to deliver policy-relevant outcomes within the scope of the IESI project defined in Chapter 1, and thus create a more robust ground for analysis and understanding.

Nevertheless, the IESI 2014-2015 joint database is not representative. Among the methods in identifying relevant initiatives, a publicly accessible online, self-administered initial questionnaire was available. Also, initiatives were identified through desk research and screening of existing databases, and the application of a kind of a 'snowball' approach. The primary goal was to create a balance in terms of geographical coverage, levels of deployment and that initiatives are addressing all PSSGI and all target beneficiary groups relevant for the project. The search has also several limitations in terms of language barriers and evidence-based needs, as well as the timeframe and novelty of the topic. Nevertheless, several interesting indications can be drawn by analysing in a comparative way the wide array of initiatives collected.

This chapter presents the main elements of the methodological approach followed in order to 1) update and expand the state of the art analysis; 2) further verify and refine the IESI conceptual and analytical framework through experts and stakeholders' consultation; and finally 3) widen and enrich the IESI Knowledge Map.¹⁷

¹⁷ While this chapter presents the key steps applied in our approach and the rationale behind them, for a more detailed description of the overall methodology of the IESI research, with regard to literature review and mapping and analysis of initiatives please consult the first IESI published JRC Science and Policy Report (Misuraca et al., 2015) available at <https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/ict-enabled-social-innovation-support-implementation-social-investment-package-iesi-mapping> and the Annexes to the Project's Deliverables D1.1.1/D1.2.1 available at: <http://is.jrc.ec.europa.eu/pages/EAP/eInclusion.IESI.html> However, for the sake of a readily available reference for the reader, key terminology adopted and developed in the IESI project can be found towards the end of this report in the "List of

2.1. Updating the review of the state of play

In the first year of research a thorough review of the literature and practice on domains related to the phenomenon under investigation and labelled as ICT-enabled social innovation promoting social investment through integrated approaches to social services delivery has been conducted. This allowed setting out the foundational concepts underpinning the research as well as providing an overview of the deployment of ICT-enabled social innovation initiatives promoting social investment and contributing to the modernisation of social protection systems in the EU member states.

However, such review was clearly limited and thus it required a further investigation, especially from a practice and policy-oriented perspective. For this purpose, in addition to further reviewing academic literature, the update of the state of the art was focused on gathering and analysing grey literature and policy documents, including through consultation with experts and stakeholders¹⁸.

In addition to this, considering that the theme: prevention, health promotion and rehabilitation of the area of active and healthy ageing and long term care for older people, which receives a special attention in this research, was not explored in the first phase of the research, a specific focus was given to reviewing literature and practice in this field (see §3.2 and §6.3).

The state of the art analysis of the **Prevention, health promotion, and rehabilitation** policy theme of AHA & LTC was distilled through a systematic literature review (Ilinca et al, 2015). The literature review included not only the scientific literature but also grey literature (e.g. policy documents, practitioners' reports and project research reports) published between 2007 and mid-2015 in English and with a geographic focus on the European Union, although research describing developments in other health and care systems in countries which are vanguard in this field were also considered (e.g. Australia, Canada, Japan, New Zealand, Norway, United States, etc.).¹⁹

abbreviations and definitions" section. The list includes, inter alia, such key terms like "ICT", or the various dimensions of the IESI conceptual and analytical framework. However, for the full elaboration of these terms please refer to the original JRC Science and Policy Report by Misuraca et al. (2015b).

¹⁸ The approach followed to build the inventory of around 200 ICT enabled social innovation initiatives in 2015 was twofold: on one hand, building on the thorough literature review performed by JRC-IPTS in the first year of IESI mapping, relevant initiatives were collected through desk research, with a particular focus on grey literature review. The methodological approach followed by JRC-IPTS for the first IESI mapping, described in Misuraca et al., 2015, was adopted to review scientific literature, grey literature, and specific databases to find relevant cases. Keywords and combinations already identified by the JRC-IPTS were used, with the addition of a few further terms to better take into account the three areas of particular interest in the 2015 mapping exercise (social housing; civic engagement; and prevention, health promotion and rehabilitation) and initiatives promoted or co-promoted by social enterprises and the private sector. Keyword searches were also performed in French, German, Italian, Romanian, and Spanish. Further to the scientific literature review (mainly through Scopus and Science Direct), over 75 databases and repositories were searched, including EU repositories and project directories, EU and national Networks and Associations repositories and International repositories. On the other hand, a communication campaign was launched in collaboration with the extended IESI community to get information directly from practitioners.

¹⁹ The review was carried out in three stages: a) initial selection based on title and abstract scanning; b) in-depth abstract review and reference search; and c) full text review. The search generated 4750 results (prevention: approximately 1900; health promotion: approximately 1050; rehabilitation: approximately 1650; grey literature: 78). After scanning titles and abstracts and eliminating duplicates, 287 articles were included in the second stage of the review. Abstract reading resulted in 133 articles, to which 28 were added after scanning the references. A total of 161 articles were selected for full-text reading in stage 3. Of them, 38 articles are relative to the area of prevention, 19 to health promotion and 20 to rehabilitation. Other 84 articles categorised as cross-cutting or addressing issues relevant for all themes.

2.2. Reaching out the IESI community

The phenomenon under investigation is remarkably fast-changing and multi-faceted, especially within the European Union. Not only new delivery models and innovations in social services' provision are emerging rapidly, but also very important and defining contextual elements are constantly evolving: from the societal challenges through the underlying cultural, political and welfare system differences to the technological environment itself. Due to this complexity, not only a multi-disciplinary approach was required, but indeed a set-up of and continuous engagement with a diverse community of stakeholders; composed by policymakers, researchers, practitioners and representatives of stakeholders from various parts of the EU.

In order to understand better the potential of what ICT-enabled social innovation initiatives could deliver in improving social services, an innovative approach to establishing a stakeholders' community around the IESI research project was developed since its beginning. Crucially, not only individuals representing a domain or an organisation were engaged but also other existing thematic networks working in the field of Social innovation and/or Social investment. By reaching out to these groups and networks through horizontal ties our access to potential information sources and experiences as well as the potential impact of our results are multiplied, and there are indications that these exchanges proved to be inspirational for all parties involved.

We call this network built around the research the 'IESI-community', and as with any real-life dynamic community, boundaries are fuzzy and elastic and the frequency and level of involvement of its members are varied.

The two main contributions of the IESI community in the first phases of the research were:

1) Information exchange about the latest trends in policymaking, research and practice; and in particular about the currently or earlier existing and operating ICT-enabled social innovation initiatives, e.g. social services, policies and systems, i.e. the very unit of analysis of the IESI project. An important and novel aspect was the launch of an online open survey – the 'Inventory', (see § 2.3) – through which practitioners and other stakeholders could directly document and nominate their initiatives to be part of the IESI database of ICT-enabled social innovation initiatives.

2) Validation of the interim results of the IESI research. During its first phase the conceptual and analytical framework and the IESI Knowledge Map, while in the second phase the overall methodological and thematic approach to updating and enriching the database and analysing it was validated by members of the IESI community.²⁰

To give an example of the involvement of the IESI Community, during the 2015 data collection fieldwork alone – between mid-June and mid-September – when a communication campaign was conducted to spread the word and ask for support and participation in IESI data collection, 27 EU networks and 18 national and local networks were contacted, the call for collaboration was published on 11 websites and circulated by e-mail and newsletters within 26 networks. As a result, around 3,000 organisations were reached through EU and national associations, and moreover influential members of the Social Innovation community were also contacted directly by e-mail and telephone. This effort was complemented engaging experts and stakeholders' representatives in several workshops and policy events all along the implementation of the research.

²⁰ The results of the mapping and analysis 2015 – to be presented later (see Chapters 5 and 6) – have been also reviewed and validated by peers and 'third party' members of the IESI Community (i.e. not affiliated with the European Commission's DG EMPL or JRC-IPTS).

2.3. Mapping and analysis: enriching the IESI Knowledge Map

As explained earlier and visualised in **Figure 4**, after the first *conceptualisation* phase of the IESI project, the second phase in 2015 aimed to *refine and consolidate* the theoretical framework and the IESI Knowledge Map through a considerably expanded database and analysis. According to the IESI methodological approach, initiatives mapped are defined as '*policy relevant experiences and initiatives which involve ICT-enabled innovations in designing and implementing services, systems or social policies more efficiently and effectively, and which address either the final beneficiaries, intermediary actors or public administrations*'. The ICT-enabled social innovation initiatives collected as part of the IESI research are selected according to the following criteria: **1) Policy relevance**: the initiatives must address the policy objectives of the Europe 2020 Strategy and the Social Investment Package (SIP); **2) ICT-enabled innovation**: they must aim to simplify and/or modernise social policies, social benefit systems and/or administrative procedures and service delivery mechanisms through ICT-enabled innovations; and **3) Evidence of policy outcomes**: they should present some evidence of outcomes generated, in order to facilitate the identification of drivers and key enabling conditions for success, and to outline policy opportunities and recommendations for possible transferability or replicability. The first two criteria are needed to be met for an initiative to be eligible for the *Inventory*, our basic pool of initiatives; while to be eligible for the *Mapping* database, and be documented and examined more in depth the third criterion about the evidence also needs to be matched (JRC Science & Policy Report, Misuraca et al., 2015b).

During the second phase of the IESI project the key goals of the data collection were:

- **Achieving an enriched coverage of the PSSGI areas** that the IESI project identified. That included in particular the sufficient coverage of three previously untapped areas, namely 1) social housing; 2) civic engagement and 3) the prevention, health promotion and rehabilitation theme of the active and healthy ageing/long term care area. Moreover, a general update on the other PSSGI areas previously covered and analysed (Misuraca et al, 2015b) was also aimed.
- **Balancing the geographical coverage of the sample**, in particular surveying all the 28 member states of the EU, but with exemplary initiatives beyond its boundaries as well.
- **Concerning levels of deployment**, particular attention was dedicated to gathering initiatives at local and regional levels. This was achieved both by searching specific databases and by involving relevant networks of stakeholders and organisations.

To achieve these goals the IESI research team updated and upgraded the research methodology toolbox applied in the first year of the project, and implemented these further steps:

- A thoroughly reviewed and **updated data-gathering template**. The update was based on the experience of the first mapping, and three major types of changes were implemented: 1) the re-structuring of the questions into three modules (Inventory; Mapping and Case studies) that reflects better the analytical depths and progressive approaches of the research; 2) the introduction of some new questions to better capture the dimensions measured in the conceptual and analytical framework; and 3) the refinement of some variables following the lessons learned during the first phase of mapping.
- The development and launch of the **IESI Web-tool** in order to facilitate the data collection and analysis, and indeed the management of the database of ICT-enabled social innovation initiatives²¹. The tool has two "scenes": 1) a publicly

²¹ The development of the IESI Web-tool was managed and financed entirely in-house by using JRC-IPTS resources, and it is hosted on a JRC-IPTS server, including the database of ICT-

accessible website²² that contains the brief description of the project and which hosts a public online questionnaire that helped building the 'Inventory' with the contribution of external experts and stakeholders; and 2) a private, restricted area with the further modules of the data gathering template and a review-and-feedback system facilitating the data quality control and workflow-management between the JRC-IPTS and its external collaborators.²³

- The building of **a consolidated database** through the merging of the databases from the two phases (i.e. 2014 and 2015). In 2015 alone 140 ICT-enabled social innovation initiatives were mapped, and therefore the initial number of 70 initiatives documented in 2014 became tripled by the end of the second phase: altogether 210 ICT-enabled social innovation initiatives that showed some evidence on delivering policy-relevant outcomes are in the consolidated **Mapping database**.²⁴ In addition, 280 initiatives were documented in 2015 in the **IESI Inventory**, offering essential data on their ICT-enabled social innovation characteristics but not necessarily presenting proof of evidence of policy relevant outcomes achieved. In total, this brings the number of initiatives contained in the IESI inventory dataset to 420 documented initiatives.
- The **outside support in sampling and documenting the initiatives**. Support to identifying and mapping initiatives to be included in the IESI 2015 Knowledge Map, including the communication campaign to engage stakeholders, was commissioned by JRC-IPTS to the Young Foundation in consortium with the Zentrum für Soziale Innovation (ZSI).²⁵

These key elements and tools of the methodological approach ensured that the goals were accomplished and laid the foundations for the data analysis which can be found in Chapter 5 and 6 of this report and followed a mixed quantitative and qualitative approach. In particular, §5.1 provides an analytical overview of the merged (2014-2015) mapping database. The analysis is guided by a quantitative approach, describing the initiatives' geographical distribution along with other basic information; then the initiatives' ICT-enablement and integration aspects, defined by the IESI conceptual framework, including the **IESI Knowledge Map 2015**; and eventually the PSSGI-areas addressed. In §5.2 the analysis looks at the initiatives through the lens of the welfare state classification, an overarching theme of the whole report, with a particular focus on the initiatives' ICT-enabled social innovation levels and policy priorities addressed. Instead, §5.3 outlines a richer understanding of the IESI conceptual framework via establishing plausible and novel links between various aspects measured in the database in order to enrich further the IESI analytical framework set-up in the first phase of the project (Misuraca et al, 2015b), to understand better the ICT-enabled social innovation phenomena in this field. Finally, in a standalone chapter (6) the findings of three thematic analyses of subsets of the overall mapped sample are presented, looking more closely at those initiatives 1) where social enterprises play a key role (§6.1); 2) initiatives addressing primarily the realisation of policy goals in the area of active inclusion of young people (§6.2); and finally 3) all the initiatives of the Active and healthy ageing and long term care area, with a special attention to the theme of prevention, health promotion, and rehabilitation (§6.3).

enabled social innovation initiatives built. The development of the Web-tool is continuous with more features planned for the near future.

²² This publicly accessible site can be found here: <http://ipts.jrc.ec.europa.eu/iesisurvey>

²³ This restricted area contains also the basic data-management features, and the Webtool is also able to perform basic data-quality checks (e.g. ranges, types of data) upon data entry.

²⁴ Due to the aforementioned changes in the data gathering template the newly implemented variables are not readily available for the 70 initiatives mapped in 2014.

²⁵ The contribution of practitioners mobilised and engaged through the IESI community was invaluable, yet in terms of number of concrete initiatives submitted relatively small (about 15% of the initiatives in the Inventory).

3. Updating the state of play

This Chapter updates the review of the literature and practice on domains related to the phenomenon under investigation and labelled as ICT-enabled social innovation promoting social investment through integrated approaches to social services delivery. In this regard, it has to be understood as complementary to the review of the state of the art made in Misuraca, G. et al 2015b.

However, a specific focus is given to the review of the theme: prevention, health promotion and rehabilitation of the area of active and healthy ageing and long term care for older people, which was not included in the review of the state of the art in 2014.

3.1 ICT-enabled social innovation promoting social investment through integrated approaches to social services delivery: emerging trends

The first phase of the IESI research focused the analysis on understanding how ICT-enabled innovations in selected areas of Personal Social Services of General Interest (PSSGI) have contributed to change the landscape of service provision from an integration perspective. Additional analysis was also conducted by exploring the role of ICT-enabled social innovation in social service provision in different welfare systems in the EU and by identifying key enablers of ICT-enabled social innovation in the field under investigation. The literature review conducted helped to define the conceptual foundations underpinning the research and developing the IESI conceptual and analytical framework. This is placed within the broader field of Public Sector Innovation (see e.g. Misuraca and Viscusi, 2015) and it is specifically oriented to better understand how the initiatives identified can contribute to the modernisation of Social Protection Systems in the EU.

The IESI research in fact aims at exploring the potential contribution of ICT-enabled social innovation to the implementation of the Social Investment Package (SIP), which encourages Member States to modernise their social protection systems with a view to emerging from the crisis stronger, more cohesive and more competitive. This means better performing active inclusion strategies and a more efficient and more effective use of social budgets. It emphasises that '*individualised and integrated services and benefits (e.g. provided through one-stop-shops) can enhance the effectiveness of social policies. Simplifying procedures can help people in need to access benefits and services more easily, also avoiding overlapping schemes and costs*'. It also highlights that those people who are disproportionally affected by unemployment, poverty, bad housing and poor health conditions and discrimination '*require policies that target their needs and offer integrated support*'. Integrated approach to social investment across a broad range of policy areas is not yet evident in many countries; however positive steps are being taken to enhance an integrated approach in some areas (Bouget et al 2015).

A 'patchy picture' of the implementation of initiatives in the field under investigation was identified in the review of the state of the art conducted in the first phase of the research (Misuraca et al 2015). References from the scientific literature in fact are predominantly related to commonly-recognised major challenges to social service delivery, such as healthcare and active and healthy ageing, and secondly to social services targeted at groups with high political priority in most European countries. However, social services reforms have been gaining momentum all over the world and the grey literature and practices collected show that the main focus of these reforms is on promoting efficiency and cost savings through service integration and cross-sector collaboration. Moreover, a number of 'pioneer' examples exist where ICT-enabled innovations lead the way to transforming how individuals interface with social service providers across a range of countries and types of services. Several initiatives based on ICT-enabled social innovation are starting to produce results or are setting the basis for effective social policy reforms, by addressing reorganisation and integration of social services provision.

Although most of ICT-enabled innovation initiatives address mainly one policy or problem area or target group, within an individual social service; the 'one-stop-shop' model of integrated service delivery is emerging as a trend to address the challenges of social policies innovation and reform of social protection systems.

More specifically, the 'Second Biennial Report on social services of general interest' (EC, 2010a) identified the following challenges the EU is confronted to:

- a growing demand for health and social services, whose main driver is the ageing of the European population and increasing of chronic diseases;
- the developments in expenditure on health and social services such as the correlation between social protection expenditure and the employment rate in health and social services (probably due to 'the relatively large weight of wages and salaries in spending on benefits in kind');
- the challenge to 'maintain an adequate supply and quality of health and social services under increasing budget constraints'; and
- the impact of the current economic and financial crisis on the provision of social services (cost rising and scarcity of public resources) which implies specific attention to the role of social issues in modern societies.

From the profound challenges listed above it can be concluded, that the **main trends associated with the introduction of social innovation in social services in Europe** are the following:

- **Emergence of new needs/search for new solutions to old needs.** Innovation is enhanced both by the demand side and by the supply side.

On the demand side, it is mainly socio-demographic change that triggers a growing variety of needs for social services. Socio-cultural change has also an effect on raising demand for such services: pluralisation and individualisation trends, changes in gender roles and relations, increasing mobility requirements by changing labour markets and structural change in families e.g. demand for a greater density of care services for children and adolescents (child care), but also for older people (elderly care).

There are also supply side factors to be considered, and they are mainly associated with technical innovations or by the diversification and specialisation of social services provided by an increasing variety of different actors. For example the growing number of welfare professions creating an expansion of the definition of requirements, particularly in the field of education, social work, psychotherapy, medicine and nursing. The 'activating role' of the welfare state is also considered responsible for an extension of the supply side. Moreover, the introduction of protocols and guidelines in professional care introduced by the wide spreading management culture: the 'enabling state' has to offer a broad range of highly complex, preventative and activating social services in order to increase the capacity for self- help and individual responsibility.

- **Need to tackle affordability of the welfare state** ('neo-liberal critique') in relation to social change in modern service economies. Based on the tension between the requirements of increasing social welfare services on the one hand and growing demands for cost saving on the other hand, a restructuring of the architecture and the logic of welfare distribution is in progress in almost all fields of state intervention. This process (also called commodification or economisation in the current discourse) refers not only to institutional and legal frameworks, but is also reflected by an increasing business orientation of public sector organisations. This drives the introduction of economic instruments to control social service providers on the background of limited available resources. The economisation is then accompanied by the paradigm of activation, which comes together with a redefinition of the welfare state's self-image. The enabling state supports and encourages a stronger interaction between public and private providers as well as a free and active civil society.

- **Greater involvement of non-public stakeholders** has been **accompanied by a shift in service locations**, for example from specialist facilities towards peoples' own homes, or using existing community resources. In turn, this is complemented by changes in resource provision from the traditional centralised single funding model towards multiple sourcing including personal budgets and civil and enterprise funding, in addition to public funding.
- **Raising attention on effectiveness.** The increasing business orientation of organisations involved in welfare policies and the emphasis on personal rights and desired personal outcomes contributed to the move towards citizenship/inclusion approach and to be associated with a new attention on the effectiveness of policies. Service management by professionals is increasingly being complemented by users, who can play an important role both in the control and management of service delivery. Users' empowerment is often accompanied by the spread of local and community management approaches, for example through self-help and personal budgets, which in many EU countries are replacing traditional centralised service provision practices. At the same time, staff delivering PSSGIs is moving towards multiple roles integration, or at least combination, across organisational and professional boundaries.
- **Drivers for innovation in transitional economies.** Post-communist countries faced the process of democratisation and the challenge of transforming a wholly centralized system. Decentralisation concerned all public spheres, including the sphere of welfare, healthcare and education. These services were extended to private and non- governmental sectors as well. Besides the organisational issues and enabling other actors to get involved, the shift required complex changes in approaches both of the providers and recipients of services.

Social innovation and in particular ICT enabled social innovation could play an important role in implementing the SIP, giving it a central role in addressing the Europe 2020 strategy's targets. The SIP recognises in fact the central role of innovation and, more in particular, social innovation can be seen as an essential element of social investment policies, given that social policies require constant adaptation to new challenges. This because social innovation can improve the efficiency of social policies and their effectiveness in addressing societal challenges and can also boost life-long investment in human capital. The keystone for explaining the synergies between social innovation and the social investment package lies on the concept of **social policy innovation** (DG EMPL, 2014), which blends the notions of social investment and social innovation. This approach is built on the integrated approaches to social services provision, and more in particular ICT-enabled social innovation in social services. In this respect the growing range of available and emerging ICT solutions (i.e. Web 2.0 and other collaborative technologies; semantic interoperability approaches; linked open data; social sensors networks; Internet of things; etc.) can further increase the potential of social innovation for the implementation of the social investment package and to contribute to the modernisation of social protection systems across the EU.

The role of ICTs in the modernisation of social protection systems and the related transformation of the social service delivery mechanisms can take two forms (as extensively described in JRC Science & Policy Report, Misuraca et al, 2015b): **ICTs as 'game-changer'**; and **ICTs as 'enabler'**. When combined with participative and collaborative innovation, ICTs are no longer a neutral general purpose technology (Bresnahan & Trajtenberg, 1995; Helpman, 1998; Crafts, 2004) but provide a medium that changes the social context of interaction. In this sense ICTs in their open collaborative and participative components can be fundamental game changers for social innovation as they lower the costs of coordination and help the move from institution to collaboration (Shirky, 2009) by providing an important contribution to social services transformation in a more sustainable and effective way (Porter and Kramer, 2011). In this respect, **ICTs can support the process of social services delivery reform** as foreseen in the SIP in different ways.

First of all, ICTs can act as catalyst for social innovation and thereby social services due to the potential **opportunities for open collaboration and participation**. They are giving voice to stakeholders and citizens, providing them with a better understanding of the choices affecting them, giving them direct ownership of and action in the decisions that affect their daily lives, and contributing to tackling social problems and renewing social policies.

ICTs help in fully **digitalising the processes and improve payment mechanisms**, allowing savings on operational costs (time and human effort), savings on benefits provided (e.g. avoiding double allowances), and higher effectiveness of intervention (thanks to better accuracy). It can also help in **reducing social services fragmentation and duplication** across organizations and countries, as well as across different levels of governance (i.e. national, regional, local) and sectors.

ICTs also contribute in **making social services more proactive and closer** to the point of need and enhance targeting through more effective identification of beneficiaries. Moreover, it is also an opportunity to directly engage citizens in the whole social services process management, and to activate continuous improvement processes of the European social protection systems based on the shared value creation principle (Porter and Kramer, 2011), by making them more inclusive and self-sustainable in a mid-long term perspective.

ICTs can be used as a **vehicle to increase accountability, and to transform and extend the reach of service delivery to the underserved** in an innovative, fast, and cost-efficient manner. In fact, ICTs are able to increase accessibility, inclusivity and flexibility in service delivery, allowing more citizens to interact with government, with the flexibility of choice offered by multiple delivery channels and at more convenient timeframes. As we will see later (Chapters 5 and 6) **the analysis of the initiatives identified in our mapping exercise, both in 2014 and 2015, confirms the important role played by ICTs in support to the modernisation of social protection systems in the EU**.

In this respect, as we will elaborate more in details in § 4.1 and 5.2, the analysis of the potential of ICT-enabled social innovation promoting social investment brings forward a central **debate on the role of the state and the extent to which current European welfare models are able to address societal challenges** at stake. This discourse is especially vibrant in connection to the services for disadvantaged groups of the population which are particularly at risk of poverty and social exclusion.

The starting point when it comes to the discussion on the welfare models is (Esping-Andersen 1990) which distinguished between **different socio-economic systems** (liberal, corporatist and social democratic models) **depending on the way the socially marginalised are addressed and supported**. In his seminal work, the 'three worlds of welfare capitalism' he proposed a typology of states depending on their approach to social security and welfare services provided. In this sense, USA, Canada, Australia and the UK are representative for the liberal category, while France, German and Italy illustrate the corporatist model and the Nordic countries are illustrative for the social democratic model. Depending on the approach to the provision of social services, the prevalence of social benefits and the role of the state in addressing the needs of vulnerable groups, new typologies of welfare states have been developed. It is based on the Esping-Andersen model yet it also tries to address its conceptual gaps (for instance, in the context of the EU, the model does not address South Mediterranean and Central and Eastern European countries).

The key issue at stake, however, is **how the paradigm shifted from the traditional welfare model of service provision to the new approach in which states are no longer seen as safety nets** (insurance schemes for the vulnerable) **but actually the state being a service provider and an enabler for human development** (Jenson 2012).

According to the SIP social innovations actively contribute to this paradigm shift from 'assistive states' (the ones that pay direct social benefits to those in need) towards a more 'progressive state' which actively contributes to enhance employability, investments in human capital and prevention. The ultimate aim of this approach is based on the findings that preventive action is less costly and more effective than reparation intervention.

However, one important question arises and that is **to what extent Member States are involved in supporting social investment and through which means**, thus setting the stage for the key issue under analysis in our research: **what is the role of social innovation and of ICTs in this paradigmatic shift.** (Hemerijck 2013), in 'Changing Welfare States', looked at social reforms taking place in Europe in the last two decades and tries to correlate the main elements of such policies in order to capture the changes welfare states are going through. From his analysis he identified the **challenges to social policy provision for EU societies**, as follows:

- globalisation as a source of new financial interdependences and fast economic internationalisation, which consequently frames the political discourse;
- the emergence of post-industrial labour markets and a shift in gender roles;
- the social guarantees for the older population as a financial constraint;
- the EU as an 'actor in restricting, prescribing but also enabling welfare state reform'
- the precarious current political context putting pressure on societies and social policy reform.

In light of these pressures, and the differences across EU countries, **the field of social investment and social reform is shaping up in a very heterogeneous way.** As the findings of the IESI research show (see § 5.2), the initiatives analysed identify these strains of the welfare system and the way they are addressed varies widely.

3.2 Focus on active and healthy ageing and long term care for older people: drivers and barriers for ICT-enabled social innovation

Within the broader area of active and healthy ageing and long-term care (AHA & LTC), an area on which the IESI research puts special emphasis due to the challenges posed by the ageing of societies to the current set-up of public services' delivery, the themes of **'Independent living of older people'** and **'Integrated health- and social care'** have been reviewed in the first phase of the project. In this update of the state of play we concentrate more into the **'Prevention, health promotion and rehabilitation'** theme, which provides a perspective of particular interest to the IESI research, as it is perfectly in line with the 'change of paradigm' promoted by the SIP and due to the high potential played by ICT-enabled social innovation.

However, before proceeding further, it is worth mentioning that the boundaries between the three AHA-LTC themes mentioned above are often fuzzy, as in real life situations they are usually closely interconnected. However, in order to understand a very complex phenomenon in the first place and then address it efficiently, one needs to disintegrate it to a reasonable degree. Not only the needs of the users of services are complex, but the services and interventions are also usually multi-dimensional (i.e. serving one primary goal could inherently support other goals that otherwise analytically belong more to a different 'theme', as a 'collateral' effect). For example a public service intervention that successfully 'prevent, delay or mitigate the onset of a disease' (EC, 2013b) also extends the time older people could live independently in the home environment. Further on this, physically and mentally fit and active older people are better prepared to manage challenges should limitations to one's capacities emerge at some later point in life (EC, 2013, SWD on LTC).

In this perspective, **Prevention, health promotion and rehabilitation can be considered the 'purest' social investment theme** within the active and healthy ageing and long-term care area, given that the investment into one's health status, health awareness, social embeddedness and activity, self-managing capacities, etc. could really pay off at a later life stage. Prevention and health-promotion strategies could indeed fit best for the life course perspective, also emphasised by the social investment approach, but in order to keep the focus of the analysis in line with the scope of the research as defined in Chapter 1 and in the previous reports (see Misuraca et al., 2015b), we set the lowest age-threshold to 65 when looking for a target population.

The group of people age 65+ is growing, especially the very old people group (80+), and the need for long-term care services is expected to triple during the next half a century (EC 2013). This increasing demand of care requires better social and health care policy solutions to attain financially sustainable public care systems, in order to avoid the expected increase of LTC public expenditure in the EU-28 from 1.6 to 2.7 percentage point of GDP (ECFIN, 2015). Public long-term care systems will also need to attract and retain a larger number of qualified formal workers providing better working conditions (Maucher, 2008; Fujisawa and Colombo, 2009; Simonazzi, 2009), and to ensure a better quality of life for older people and carers (Carretero et al., 2009).

A new approach to public services design and implementation is needed to be adopted in order to address these growing challenges adequately, not only to match the increasing demand with supply; but also to make it more cost-effective; enhance quality; increase efforts to prevent rather than cure; and co-create services with users. To achieve these goals, most models identify ICTs as crucial in a novel service model, design or delivery. In this respect, a systematic review on the empirical literature of ICT-enabled social innovation in Prevention, health promotion and rehabilitation (Ilinca et al., 2015) identified the following as the main areas where ICT-enabled social innovation could have great potential in supporting the implementation of the SIP: ²⁶

The **Health and self-management potential**, that consists of two main dimensions. One of it is focusing on the **orthodox/medical approach to health** and usually measured through clinical outcomes to physical and cognitive functions. The other one could – and in a new, innovative approach should – be complementary to the medical health concept to co-create a possibly more appropriate, overall, holistic tool to measure outcomes of care (PwC, 2015), and these include measurements of any changes in the **self-management, self-sufficiency, empowerment and health literacy of users and their subjective quality of life**. Although a lot of instruments exist to measure elements of these outcomes, this abundance and the somewhat inconsistent / partial use on the field make it difficult to draw a systematic picture about the health and self-management potential of ICT-enabled social innovations. However, as Burdick and colleagues (2012) and van Bronswijk et al (2002) suggest, the following are the social, health and healthcare domains within which ICTs can have an impact: a) prevention or delay of decline (including both clinical and functional outcomes); b) compensation for age-related loss of function (also including both clinical and functional outcomes); c) care support and organisation, and; d) enhancement and satisfaction with respect to quality of life, including those facilitating to keep or enhance an active lifestyle and social inclusion.

Clinical health outcomes are more routinely measured, though, and numerous studies have reported significant gains in health status in diabetes management, which is emerging as one of the main chronic care domains for ICT-based solutions (Ekeland et al., 2010). Telemonitoring interventions (enabled by wearable devices) have led to reductions in blood glucose level (Mignérat et al., 2014; Chan et al., 2012), reduced frequency of hypo- or hyper-glycemic events, and lower health risk scores (Mignérat et

²⁶ IESI Support study commissioned by JRC-IPTS to the European Centre for Social Welfare Policy and Research.

al., 2014; Pare et al., 2010; Brooke et al., 2015). Similarly, positive results with telemonitoring have been consistently reported for hypertension management - lower blood pressure, better blood pressure control, reduced use of antihypertensive medications (Logan, 2013), asthma management (Chan et al., 2012) and cardiopulmonary rehabilitation - dyspnea and respiratory capacity (Barberan-Garcia et al., 2014). On the other hand, less consistent results were reported from studies on the application of ICTs to the care of older people: vital sign monitoring technologies were associated with significant health outcome gains only in approximately one half of the surveyed studies, while the remainder reported no sizeable effect (Barlow et al., 2007). In the case of safety and security monitoring devices (e.g. for fall prevention and other community alarms), no conclusion could be drawn as insufficiently rigorous evidence is reported in literature (Barlow et al., 2007).

More specifically, in the area of *prevention*, **alarm and monitoring systems for fall prevention** are one of the ICT-based initiatives where positive clinical outcomes are well-established (Hawley-Hague et al., 2014; Mellone et al., 2012). Such systems have proven effective at reducing the frequency of falls and have proven to be highly useful in ensuring professional care is available in a timely manner, significantly reducing the risk of a 'long lie' and the severity of associated medical consequences (Kosse et al., 2013). In addition, more proactive fall prevention and functional decline prevention technologies (e.g. coaching and gait-training systems, exergaming) allow users to engage in physical activities associated with increases in strength and balance, which in turn reduce the risk of a fall (Hawley-Hague et al., 2014). Finally, while non-wearable systems installed in institutional environments proved less effective than wearable devices (Kosse et al., 2013), the introduction of bed-exit alarm systems have shown to lead to significant reductions in the number of falls with associated cost savings estimated by one study at 1,000 Euros in 2002 (Hilbe, 2010).

Moreover, a recent review of **exergames** concluded that at least partial support exists for positive associations with improvements in strength, basic motor control, energy expenditure and self-efficacy, but the quality of the available evidence is low and little is known about the long-term effects of exergaming on health measures (Wiemeyer and Kliem, 2012). Furthermore, published studies tend to compare the effectiveness of exergames with the alternative of no intervention (rather than the more realistic control of standard care and health promotion measures) and to disregard possible opportunity costs associated with exergaming (i.e. the same time could be invested in physical activity or social interaction).

Echoing more general result that ICT-enabled social innovations in the areas of prevention, health promotion and rehabilitation are best suited as a complement rather than substitute to traditional care practices, cognitive exergames have been found to lead to more marked positive outcomes when paired with physical activity, rather than when used in isolation (Bamidis et al., 2014; Anderson-Hanley et al., 2012).

Unfortunately, the lack of health outcome assessment is a major limitation common to virtually all **health literacy (health promotion)** studies, although some impact on health status can be inferred from the significant increases documented in healthy behaviours (Manafio and Wong, 2012; Xie, 2011). The same holds true for assessments of smart home technologies (Boise et al., 2013; Demiris & Hensel, 2008). Evaluations of personal coaching systems that promote healthy behaviours and lifestyles have demonstrated the potential to contribute to health gains and lower health risks in initial tests (Hermens, 2014) but further research is necessary in order to confirm these effects. Overall, many ICT-enabled interventions in the area of prevention or rehabilitation focus on immediate specific outcomes and fail to report on final health outcomes (Morris et al., 2012; Mclean et al., 2013).

In the area of **rehabilitation**, tele-rehabilitation programs have consistently shown positive results when used in the wake of adverse health events, most notably stroke. In a randomized controlled trial study, a virtual reality-based rehabilitation program

delivered via the Internet - in conjunction with videoconferencing components for remote contact with specialized care professionals - has led to significant improvement in functional abilities in post-stroke patients who received ICT-enabled intervention as compared to the traditional care group, in the medium- and long-term (van den Berg et al., 2012; Piron et al., 2009). While the gains of telerehabilitation interventions over traditional care are not always confirmed, improvements in health and functional status have been reported in numerous post-stroke telerehabilitation programs (Corriveau et al., 2012).

In a review of cardiac rehabilitation programs, Munro and colleagues (2013) analysed results from 9 ICT-enabled intervention studies with a total subject pool of over 800 users; their analysis reveals consistent and significant improvements in both clinical outcomes and psychosocial measures (e.g. anxiety and depression, self-efficacy, quality of life). Similar positive results emerge from a more recent review of a wider range of cardiac rehabilitation ICT-based social innovations pooling results from 13 studies (Varnfield and Karunanithi, 2015).

Quality of life-related outcomes are rarely included in the empirical literature (Mignerat et al., 2014; Brooke et al., 2015; Botsis, 2008; Morris et al., 2012), and are commonly proxied by indicators of user satisfaction. However, the heterogeneity of scales and measurements used renders the comparison of results impossible. As an important factor of psychological and physical well-being, social interaction and social participation in older age are key facilitators, and socially assistive robots (SAR), most notably AIBO and Paro,²⁷ have been associated with higher levels of communication and interaction of elderly individuals with peers and carers, and have been found to improve user mood and to encourage social participation (Kachouie et al., 2014). Similarly, gaming platforms, many of which include communication platforms, encourage social bonding and interaction between players (Plaza et al., 2011). Components for enhanced communication and social interaction are routinely included in smart home systems (Jacelon et al., 2013) and peer support and information groups have emerged around Internet based platforms for health promotion and disease management (CTA, 2014), and social platforms to engage in more social interactions and alleviate loneliness. On the other hand, though, by reducing the need for formal and family carers to visit or interact with a dependent older person, technology can contribute to locking them in, rather than affording them more independence (Roberts & Mort, 2009, Mort et al., 2011), and older people are wary of adopting technology for this perceived threat to their possibilities of personal social contacts.

And finally, **telecare and telehealth interventions are often described as having the potential to reduce carers' burden and improve emotional and psychological outcomes, but the evidence to date is limited.** Exceptionally, two randomized controlled trials evaluating a telephone and computer integrated intervention for caregiver support within the US based REACH program, found significant reductions in depression and anxiety levels for caregivers of sufferers from cognitive impairments and dementia (Piau et al., 2014). A review of the literature on the effects of telecare services (provided to older adults with social care needs) on the wellbeing of informal carers, found that positive effects on carer stress and strain are not paralleled by gains in carers' quality of life, which was measured in only one study (Davies et al., 2013). While the studies focusing on ICT-enabled solutions for older individuals in the areas of prevention, health promotion and rehabilitation rarely include assessments of the impact on quality of life and other health and social outcomes of caregivers (be they formal or informal), a separate branch of the literature, focusing on ICT-enabled solutions targeting carers themselves has identified positive impacts. Further research is necessary in order to firmly establish these results (Fischer et al., 2014).

²⁷ Aibo and Paro are two robots that react to humans physical gestures, and allow elderly people to be active by taking care of them. Aibo is a dog-robot and Paro a plush baby seal which comfort dementia patients and used widely in care homes. Both are made in Japan.

In this regard, the analysis of the state of the art conducted as part of the IESI research shows that **the social innovation potential of an ICT-enabled initiative stems from the impact of the newly introduced model on social relationships or collaborations and its ability to affect the existing process of social interactions** (Misuraca et al., 2015b). Because they hold the promise of reshaping care processes, such innovations can become powerful tools towards improving and ensuring a higher quality of care delivery. In the process of development and implementation, end-users of ICT-enabled social innovations can experience significant shifts in their roles and patterns of interaction with their immediate social circles and care professionals.

Both formal and informal carers can benefit from using such innovations, which can provide much needed support to carers whether in the form of workload alleviation, increased monitoring capacity or guidance, counselling and peer support. By providing much needed support to formal and informal carers, ICT-enabled social innovations respond directly to the SIP policy objective. Many initiatives focus on promoting self-management and empowering users, in the process rearranging responsibilities for care and shifting the balance in terms of control over processes and possibly outcomes. The trend toward a patient-centred focus in health and social care, in part attributable to personalised health technologies, is redefining the patient-doctor relationship by creating a more balanced equation in which patients have access to their own health data and are able to better self-manage their conditions (Brooke et al., 2015). By centering care on users ICT-enabled social innovations help increase their capacity to care for themselves and live independently in their home settings and addressed yet another SIP policy objective. In addition, through this process, the pressure on the formal care system is reduced, decreasing the number of necessary contacts with care professionals and contributing to increases in the cost-efficiency of care. It should be noted here, however, that none of the studies reviewed suggest that ICT-enabled innovations can or should serve to replace face-to-face consultations with care professionals, rather that such innovations can be an effective complement to traditional services.

The impact on the care system and on professionals is also likely to be considerable. ICT-enabled interventions can create entirely new services, complement existing ones and even substitute them with far-reaching consequences for workflow, workload, care coordination and roles of professionals in the care process. In order to minimize overlap with other sections of this report, we outline some key results from the empirical literature with an emphasis on providing examples of ICT-enabled solutions that have succeeded in having a social impact across technology types (e.g. telecare, telehealth, mHealth, robotics). These interventions are 'not only good for society but also enhance individuals' capacity to act' (Misuraca et al., 2015b: 39).

The introduction of telecare innovations in the area of preventive care for older adults has raised numerous questions on the potential impact on patterns of care (Mort et al., 2014; McLean et al., 2011). Monitoring devices (often home-based) have contributed to facilitating preventive efforts and increasing user safety, allowing older individuals to remain in their home environment longer, while ensuring care professionals can intervene rapidly if an adverse event (fall, wandering, respiratory or cardiac distress, etc.) does occur. In doing so, the technology reduces the number of necessary contacts between care professionals (e.g. less contacts with providers, reduced hospital admissions, reduced length of stay) and older persons and affords the latter more control over their care (Hawley-Hague, 2014; Botsis et al., 2008; Stowe and Harding, 2010; Reeder et al., 2013). In a review of telecare and telehealth applied to the area of care for older adults, Barlow and colleagues (2007) conclude that the strongest available evidence on the impact of such ICT-based social innovation is at the system level, most notably in reducing health service use. In one study evaluating a stroke tele-rehabilitation initiative in the UK, the system was found to reduce the length of stay (LoS) of patients, and resulted in estimated recurring annual cost savings of €61,000 (Barber et al., 2015) for the tele-rehabilitation service.

The widespread implementation of telemonitoring via wearable devices could also have a considerable impact in countries experiencing a shortage of healthcare personnel by reducing the need for visits to out- and in-patient facilities (Lamothe et al., 2006; Mahoney, 2007), provided that the telemonitoring platforms can be seamlessly integrated into existing health system structures (Chan et al., 2012). By reducing the pressure on already strained health and social care resources, ICT-based social innovations can contribute to the SIP policy priority of improving their sustainability through approaching older adult care in the most cost-efficient way.

A further example, relevant for the theme of health promotion, is the case of **personal coaching systems**. They allow the user to take control of the process of improving their lifestyle and health behaviour (Hermens, 2014). However, as a professional can always remotely monitor progress, adjust goals and assist the user if required, the quality of care and level of user confidence should not be compromised. To date, personal coaching systems operate as complementary interventions to traditional care services, rather than as substitutes, but as the systems are becoming increasingly complex and powerful the supervisory role of professionals may become more marginal.

Numerous ICT-based initiatives show great potential for transforming care by contributing to integration and efficiency gains throughout the delivery chain.

Complex service-wide interventions (e.g. the inCASA integrated telehealth – telecare platform), while still in the pilot phase, have increased the ability of care professionals to respond quickly to health emergencies (due to the complex emergency alarm systems) but also to access more comprehensive data about patients and their habits, allowing for better, more targeted treatment (Kapsalis et al., 2012; Lamprinakos, 2015; McLean et al., 2011). What is more, such systems allow for the simultaneous involvement of different professionals (e.g. rehabilitation specialists, social service workers, physicians, psychologists, etc.) in the care process, all of whom are kept informed about the status of the patient and can collaborate to address emerging health conditions in the most appropriate manner (Lamprinakos, 2015; Cipriano et al., 2013; Lluch, 2013). The correlation of health, activity and psychological data enables care professionals to make a comprehensive assessment of the patient's status and can prove essential in the care of certain complex patients (Kapsalis et al., 2012; Lamprinakos, 2015). As an example, a post-stroke tele-rehabilitation system introduced in the Western Isles of the UK was shown to encourage multi-disciplinarity of care teams (e.g. doctors working in larger hospitals and stroke therapists/nurses in smaller inpatient and outpatient facilities) and succeeded in connecting patients living in remote areas to necessary care, thereby contributing to increased integration of care provision (Barber et al., 2015).

To sum up, **the review of literature and practice conducted shows that the past decade has witnessed an unprecedented pace in the development of ICT-enabled social innovations for AHA<C**, as we will see more in details in the thematic analysis in § 6.3. However, **the vast majority of these initiatives are still in the pilot phase or undergoing small-scale testing, and the level of diffusion remains low in most EU Member States**. For example, in the UK, only 6% of the population aged 65 or older and only 2% of older individuals who do not live alone reported use of personal call alarms (Nyman and Victor, 2014).

As such, it is unclear whether even the most basic ICT-enabled innovations for the care of older people have been adopted in the mainstream of care provision. In this sense, the maturity of long-term care ICT markets in Europe varies widely, with simple telecare devices the only category of technology that has been introduced in virtually every country and is approaching mainstream status in Anglo-Saxon and Nordic countries. Simple social alarms have a take-up rate of 14%-16% in the UK and Ireland and between 6 and 10% in Finland, Sweden and Denmark, with the rest of Europe registering under 3% take-up. Only in Ireland and Poland (and outside Europe in the US and Japan) is the market dominated by private provision, while in the rest of Europe the bulk of telecare technologies are integrated in the public social service provision

supplemented by private provision and purchasing (European Commission, 2010). For example, the Whole Systems Demonstrator Program targeted to implement telecare and telehealth in the UK sought to establish the cost effectiveness of tele-technologies in health but has faced difficulties in doing so due to the fragmentation between social and health care sectors in the UK (Barlow & Hendy, 2009; Mattke et al., 2010; Berridge et al., 2014). This is a common problem faced by many European systems and we can infer that fragmentation between social and health care will affect, to various extents, the up-take of ICT-based social innovations throughout the continent.

As regards telehealth, most developed European countries have implemented advanced large-scale trials or localised mainstreaming initiatives, while Hungary, Poland, Ireland, Bulgaria and Slovenia still lag behind. The main providers of telehealth services have so far been hospitals, with lesser involvement of other health and social sector actors. A noteworthy exception is Germany, where a telehealth program has been initiated and promoted by a health insurer (European Commission, 2010). Telecare – telehealth interventions for the management of chronic diseases, increasingly more common in North America and in developed Asian countries, are still relatively rare in Europe: only 7 (out of a total of 50) studies on diabetes mellitus management based in Europe were included in a recent review (Mignerat et al., 2014).

Smart home technologies show the same highly variable pattern of diffusion throughout Europe. However, despite numerous trials and demonstrators no advanced mainstreaming has taken place to date (European Commission, 2010). In fact, smart home and assistive technologies are still in their infancy in all European countries, with the Nordic countries generally evaluated as more advanced than the rest of Europe. The only country where a policy initiative for mainstreaming smart home technologies over the next decades exists is the Netherlands, but even here take-up has been marginal to date (European Commission, 2010). A fact-finding study prepared for the European Commission in 2010 found that of the nearly 700 organisations active in the Ambient Assisted Living (AAL) research-and-development (R&D) field in the EU-27, only 20% were located in Southern European states (defined by the authors as: Portugal, Spain, Italy, Greece, Slovenia, Romania, Bulgaria, Hungary) and only 11% in new EU members states (i.e. Romania, Bulgaria, Hungary, Slovakia, Czech Republic, Poland, Latvia, Lithuania, Slovenia and Estonia) (Gassner and Conrad, 2010). The deep North-South divide is also apparent in the distribution of organisations involved in R&D on AAL technologies, 74% of which are located in northern European states with the highest concentration in Germany (Gassner and Conrad, 2010).²⁸

While reliable data is generally absent, in the more limited-resource environments of new EU member countries, the penetration of ICT-based solutions in health and social care systems is very low. Based on the limited evidence that is available, the examples of Romania and Slovenia are revealing; in these countries the adoption of ICT for AHA<C remains limited and the use of Internet-based platforms lags far behind the levels registered elsewhere in Europe (Ianculescu et al., 2008; Blažun et al., 2014; Currie & Seddon, 2014).

Thus, while no clear patterns emerge for the adoption of ICT-enabled social innovations in national care systems, more general research has found that there exist **several reasons that are challenging the social protection systems to achieve ICT-enabled social innovations to be mainstreamed for the care of older adults**.

One of the main reasons is that despite anecdotal evidence, **sound scientific evidence of effectiveness is available for very few of these innovations**, generating often scepticism regarding the ability of ICT-based solutions to produce tangible benefits and

²⁸ The same study identified 177 different AAL products being used in the EU-27 countries, with the greatest concentration in Germany (33 AAL products) and the UK and France (each 20 products) and the lowest in Cyprus, Czech Republic, Hungary and Lithuania (each with only one identified product).

creating a barrier to public and private investment to implement solutions on a wider scale (Carretero, 2015a). Morris et al. (2012) also found gaps in the scientific literature on the benefits of these technologies after reviewing 8,000 papers on smart technologies for older adults, pointing out that *'despite the large volume of descriptive text, the scientific validation of these technologies is lagging behind'* (Morris et al., 2012). This scarcity of scientific evidence of the benefits of technology-based services for independent living has also been indicated in other works (Carretero et al., 2012a, b; Billings et al. 2013). In fact, lack of rigorous study designs and sample sizes has been found a common limitation in the assessment of ICT-based initiatives across themes and technology types (Ekeland et al., 2010; Mistry, 2012; Wootton, 2012; McLean et al., 2013; Wiemeyer and Kliem, 2012; Piau et al., 2014; Varnfield & Karunanithi, 2015).

Besides lack of sound scientific evidence, other challenges for wide adoption of these technologies exist (Carretero et al., 2012a, b; Billings et al., 2013). In addition to barriers associated with the lack of interoperability and standardisation, one of the challenges of ICT-enabled social innovation services for AHA<C are related with the **technology adoption of the services**, where older people can lack of the 'digital' competences required. Nevertheless, various studies hold that age is not the key determinant in the adoption of ICT-enabled innovations in healthcare (Aalbers et al., 2011; Botsis, 2008; Bryson, 2015; Fischer et al., 2014; Loe, 2015). Being more relevant for older people to adopt and use continuously a new technology are: 1) their perception that it is responding to an explicit need (Hawley-Hague et al., 2014; Loe, 2015; Logan, 2013; Mahoney, 2011), as well as that 2) it does not involve the performance of complicated tasks (Logan, 2013; Hawley-Hague et al., 2014; Sun & Rau, 2015). Such issues are specifically pertinent for ICT-based innovations targeting users who suffer from cognitive impairments. In fact, in order to maximise the degree of acceptance, studies inform that complex ICT applications should be provided with appropriate support and user training (Heart & Kalderon, 2013; Plaza et al., 2011; Wang et al., 2010), be usable (Jacelon et al., 2013; Demiris, 2009; Memon et al., 2014) as well as ensuring control over data protection and privacy so to guarantee a low intrusiveness perception (Pietrzak et al., 2014). Moreover, health and social care professionals show reluctance to accept new technologies, mainly because this implies learning new competences and requires a change in their traditional way of working as well as the fact they are afraid about being substituted by ICTs. In addition, because care systems are slow to adopt new ways of working, the necessary 'simultaneous innovation', where the system changes to keep pace with technology, does not occur (Goodwin, 2012).

There is also a **lack of efficient business models** that could show governments the effective cost of services and convince them that there would not be any additional cost. Nevertheless, despite wide recognition of the importance of cost-efficiency and affordability in the adoption and mainstreaming of ICT-based solutions for older users, costs are rarely measured or reported in the surveyed literature, as most studies focus on the design, patient satisfaction and feasibility of interventions rather than on financial sustainability and impact (Stowe and Harding, 2010; Aalbers et al., 2011; Hawley-Hague et al., 2014; Ekeland et al., 2010). For example, a systematic review by Barlow and colleagues (2007) on telecare for frail older people and people with chronic conditions living at home highlighted the uncertainty surrounding effectiveness of interventions in this area. Even when they are cost-efficient, the scaling up of successful home telecare initiatives is impaired by the lack of consistent reimbursement policies for such services in most countries.

Affordability and availability can also become major issues in the take-up of ICT-enabled social innovations, especially when complex equipment and technological devices are required, and can severely limit the access of individuals with limited financial means (Logan, 2013; Chan et al., 2008; 2009; Burdick, 2012; Saborowski and Kollak, 2015). More generally, despite their cost-efficiency, the scaling-up of home telecare services is impaired by the lack of funding support and consistent reimbursement policies for such services in most countries (Botsis, 2008; CTA, 2009), and in general by the highly

fragmented standardisation, product categorisation and procurement strategies across the EU member states (Cenderello et al., 2013).

Moreover, as pointed out by the U.S. Congressional Report on Aging Services Technologies (Department of Health & Human Services, 2012) the **lack regulatory frameworks and structured funding and reimbursement systems** are among the most under-addressed topic in the field of ICT-based innovation for elderly care. Satariano and colleagues (2014) suggest a number of innovative payment schemes that can facilitate the development of the field; among them are bundled payments and services, uniform national payment schemes and tax benefits to developers that provide low-cost technologies. In a comparative case study review of European tele-healthcare initiatives in eight countries, Lluch (2013) also found that bundled payment schemes and outcome-based schemes favour the deployment of such ICT-based innovations. Future research efforts should thus focus on developing affordable solutions which can be readily available to a large number of older individuals.

This shall also consider the transferability of 'proven' practices which would however also depend on a number of other variables, such as the **national or local characteristics, cultures or habits, and the surrounding health and welfare system or the existing support services**. In this regard in fact, there are high differences among countries that should be taken into consideration and 'contextualised' (as we will see in Chapters 4 and 5). For example, the UK is a front-runner in the adoption of telecare and telehealth, while complex ICT-based systems in the field of smart home technologies tend to be more developed in Nordic countries (European Commission, 2014). The more consistent pattern follows resource availability, whereby countries in which health and social care system resources are more strained (i.e. Southern Europe and new EU members), display lower adoption rates and market maturity. This analysis however requires further research and more in depth investigation to better understand barriers and drivers with specific regard to the implementation of ICT-enabled social innovation initiatives promoting social investment and to support the modernisation of social protection systems. This is in part addressed in the thematic analysis on Active and Healthy Ageing and Long Term care for older people included in this report (see § 6.3.) and it will be further developed in specific case studies conducted in a complementary component of the IESI research.²⁹

3.3 Level of deployment of ICT-enabled social innovation in the EU28

This concluding section of this chapter aims at providing an overview of the deployment of ICT-enabled social innovation initiatives promoting social investment through integrated approaches to social services delivery in the EU28. To this end it presents the findings of the analysis of initiatives collected during the second year of the research in the **IESI Inventory 2015**. This includes a total of **280 initiatives representing all the EU28 countries and Personal Social Services of General Interest (PSSGI)**. It provides a picture in terms of geographical spread, levels and types of deployment and various services covered.

First of all, the analysis confirms the findings of the 2014 review, and shows that **ICT-enabled social innovation initiatives promoting social investment through integrated approaches to social services delivery vary hugely in terms of levels of deployment across Europe and across different PSSGI areas**.

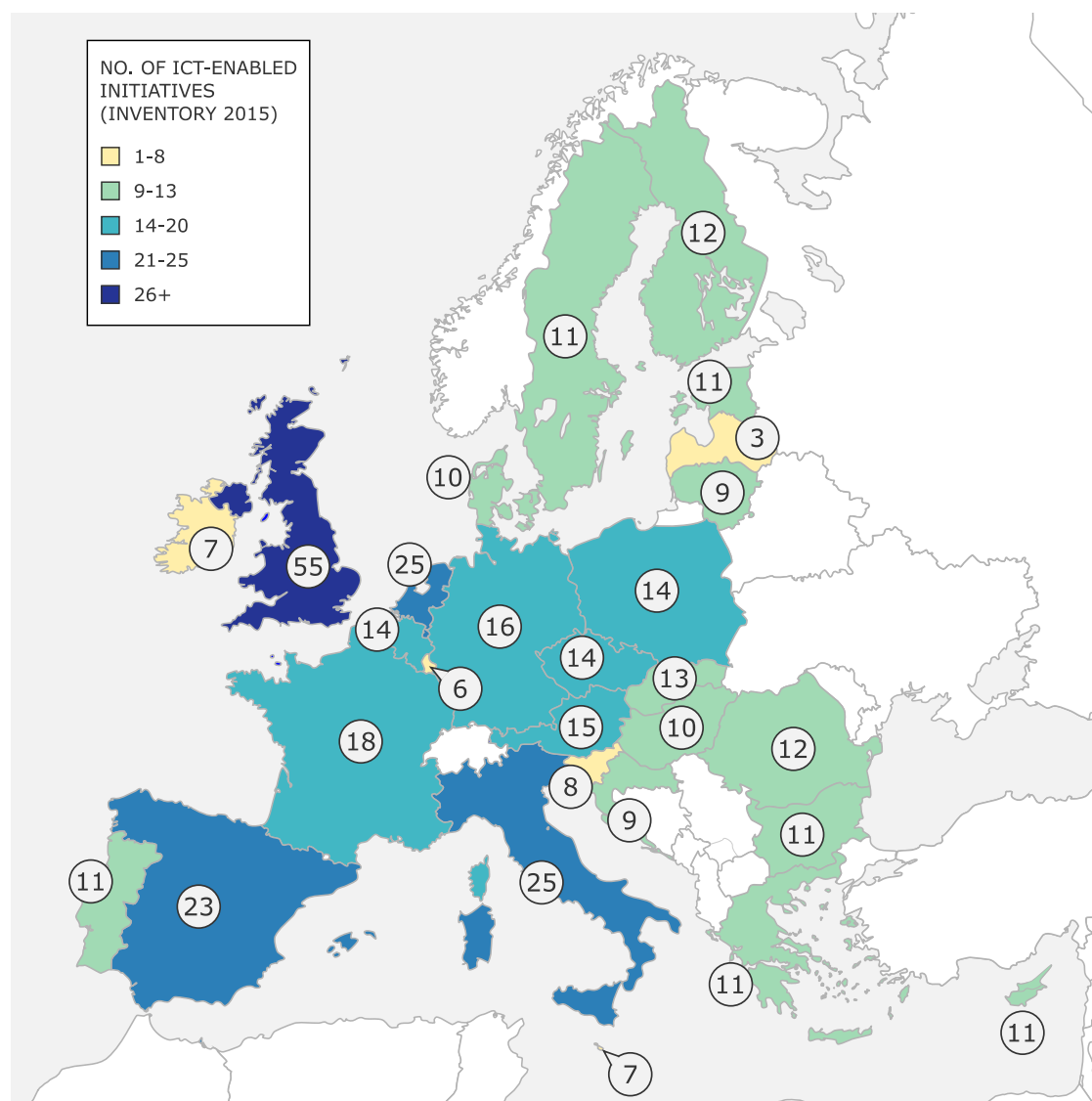
ICT-enabled social innovation initiatives are more widespread in certain European countries than in others, and availability and quality of evidence on

²⁹ As part of Work Package 3 – Thematic Analyses of the IESI project, in-depth case studies are being investigated and a Report on the role of ICT-enabled social innovation promoting social investment and to support the modernisation of social protection systems will be produced in the first half of 2016.

impact achieved is also uneven across different Member States. In addition, ICT enabled social innovation initiatives are well documented for certain PSSGI areas (i.e. Education and training, Social assistance, Social care, Employability, Employment, Social inclusion/participation, Civic engagement, Independent living in the home environment, Integrated health- and social care, Prevention, health promotion and rehabilitation), while are not easily found in others (i.e. Childcare, Social Housing).³⁰

More specifically, in order to complement the sample collected in the first phase of the research (140 initiatives included in the IESI Inventory 2014, see JRC Science for Policy Report, Misuraca et al., 2015b) and address the gaps identified in the first exploratory exercise, in 2015 the research has focused in particular on Eastern Countries and some Southern and Central Countries which appeared underrepresented in the 2014 inventory. However, initiatives from all the EU28 countries have been identified in 2015, as can be observed in Figure 5.

Figure 5: IESI Inventory 2015 – Geographical coverage EU28 (n=280)



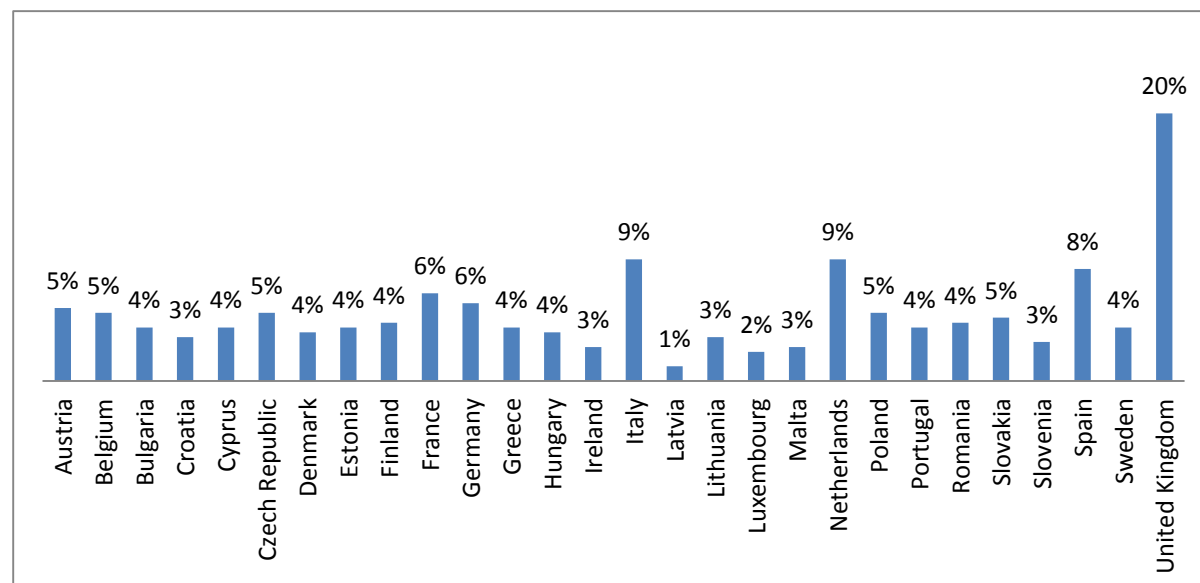
Source: own elaboration.

³⁰ It should be underlined that the data gathering conducted as part of IESI focuses mainly on the EU28 Member States, even though initiatives from third countries have also been included when relevant. In this regard, it is worth noticing that most initiatives from third countries are international initiatives, often initiated through EU-funded projects.

A total of 277 initiatives included in the 2015 inventory are implemented within the EU28. However, countries in the map count for 391 as the initiatives include both initiatives implemented in a single country and multi-country initiatives. This means that each of the 277 initiatives actually covers in average 1.4 countries within the EU28.

The UK is by far the country with more ICT-enabled social innovation initiatives identified in 2015, with 55 (20% of the total inventory for EU28, see Figure 6) ICT-enabled social innovation initiatives collected based in or involving the UK. This was also noticed by the 2014 exercise (see Misuraca et al., 2015).

Figure 6: IESI Inventory 2015 – Geographical coverage EU28 (n=280))



Source: own elaboration

Nordic Countries, Austria, France, Germany, Italy and Spain are well represented in terms of presence of initiatives. However, it is worth mentioning that Nordic countries are slightly underrepresented compared to the 2014 exercise. This is more due to a research choice than to the availability of relevant initiatives on the ground.

At the same time, the **high number of initiatives from Italy, Spain and the Netherlands** – further to represent the size of the countries in demographic terms - represent the high number of relevant initiatives present in these countries, as well as high participation rates to European projects and exchanges of practices³¹ (particularly for Italy and Spain). This is also reinforced by the activism of the partners and respondents in the IESI 2015 communication campaign, with about half the initiatives suggested to the researchers coming from the UK, Italy and Spain.³²

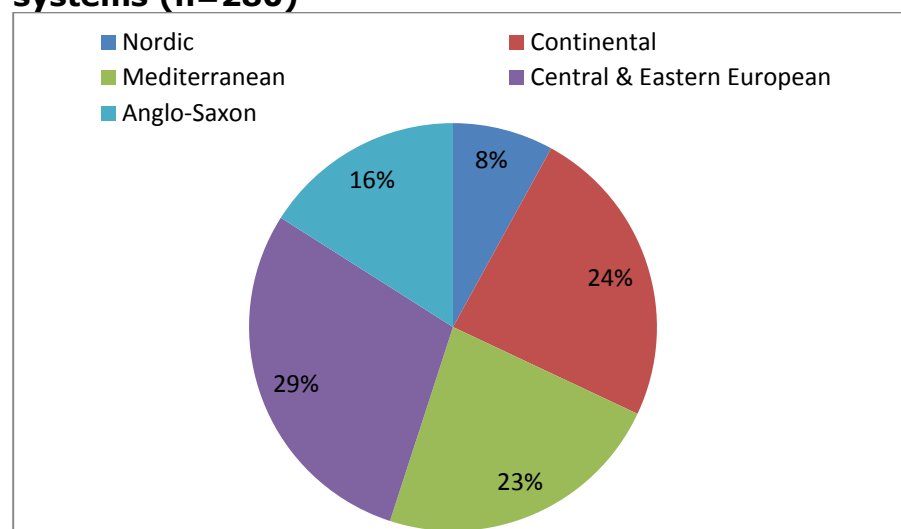
³¹ France, Germany, Italy, Spain and the UK are the countries with highest rates of participation to EU funded projects, with each country receiving more than 10 million in EU grants under the Horizon2020 Programme in 2015, and the Netherlands receiving over 8 million euros. Between 2007 and 2013, the six countries received more than 2 billion each under the FP7 Programme. (European Commission 2015c; European Commission 2015b).

³² A 'call for collaboration' was launched in June 2015 to collect ICT-enabled social innovation initiatives from across Europe. 43 cases were collected, 13 submitted directly through the IESI webapp, 30 sent to the researchers, out of which 32 proved eligible for the inventory. Cases were received from Albania, Austria, Belgium, Croatia, Czech Republic, Denmark, France, Hungary, Ireland, Italy, Poland, Portugal, Romania, Serbia, Slovakia, Spain, Sweden, the UK and the USA, and represented all the PSSGI.

If we look at Eastern Countries, as well as at Cyprus, Greece, Luxembourg, Portugal and Malta, we see that the number of initiatives at inventory level is lower than for the other groups of countries. This may reflect lower levels of deployment of ICT-enabled social innovation in these countries. Finding relevant initiatives in Eastern and in some Central and Southern European Countries (Cyprus, Greece, Luxembourg and Malta) in fact was often challenging. This is partly due to linguistic reasons.³³ In addition, initiatives from the above mentioned countries were less represented in the over 70 repositories screened to find relevant initiatives for the inventory. Structural factors such as presence of IT infrastructure, levels of digital literacy both within public service providers and the general population and different public social service delivery systems (and related public budgets) could also contribute to explain the greater or lesser presence of ICT-enabled social innovation initiatives across EU Member States. However, it was possible to find relevant initiatives for each of these countries, and particularly in Southern countries and in Bulgaria, Estonia, the Czech Republic and Slovakia, which performed well and especially if compared to their size.

If we analyse the initiatives according to their **welfare model typology**, Figure 7 shows that Eastern countries are the most represented group in the inventory sample. However, as already remarked, this is mainly due to the particular attention dedicated by this phase of the research to documenting initiatives from this group of countries with a view of addressing the 2014 Mapping exercise gaps in terms of geographical coverage and better understand the levels of deployment of ICT enabled social innovation across the EU28. Also, this welfare group is the biggest in terms of number of countries, 11 in total.

Figure 7: IESI Inventory 2015 – Distribution according to EU welfare systems (n=280)



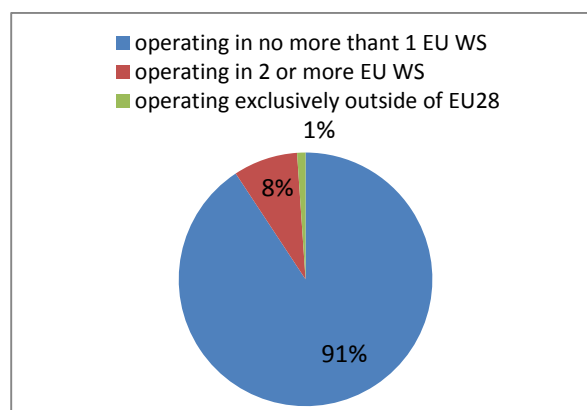
Source: own elaboration.

As it can be seen in Figure 8 below, an overwhelming majority of the initiatives in the inventory operate within the borders of a single welfare system typology. This is probably due to the fact that most initiatives operate within the limits of a single state - at local, regional or national level (Figure 9). In particular, if we look at cross border

³³ Although researchers involved in the Mapping 2015 from JRC-IPTS and the supporting team of the YF/ZSI were able to access information in several languages (i.e. Dutch; English, French, German, Hungarian, Italian, Portuguese, Romanian and Spanish) information for some other countries was hard to be identified. Moreover, since the IESI Web Tool allowed only data entry in English and the knowledge of English in some countries is not necessarily high, this may have been a barrier to data entry from external users.

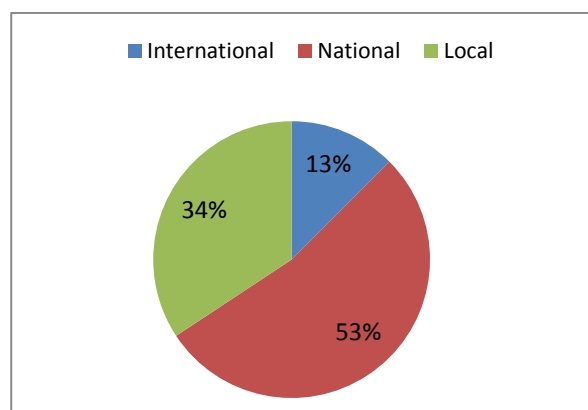
initiatives, we notice that out of the 35 cross-border initiatives present in the inventory, only 12 operate within the same welfare system model, while 23 operate not only internationally, but also 'inter-welfare system typology'.³⁴

Figure 8: IESI Inventory 2015 – Cross-EU28-Welfare Systems operations (n=210)



Source: own elaboration

Figure 9: IESI Inventory 2015 – Levels of deployment (n=210)



Concerning **levels of deployment** (Figure 9), most initiatives (53%) fall in the 'national' category. The scarcity of international initiatives (13%) can be explained by the fact that, according to the IESI project priorities, the research tended to exclude prototypes resulting from research and development activities, 'pilot projects', and not well established initiatives from the basin of candidate initiatives, focusing instead on fully fledged initiatives or promising initiatives which could potentially become established in the near future.³⁵

In **terms of chronology** (Figure 10), most initiatives among the ones included in the IESI Inventory 2015 have been implemented between 2006 and 2015. The highest presence of relatively recent initiatives compared to the 2014 exercise³⁶ is mainly due to the broader presence of Eastern and (some) Southern countries, where ICT-enabled social innovation is a relatively recent phenomenon.³⁷

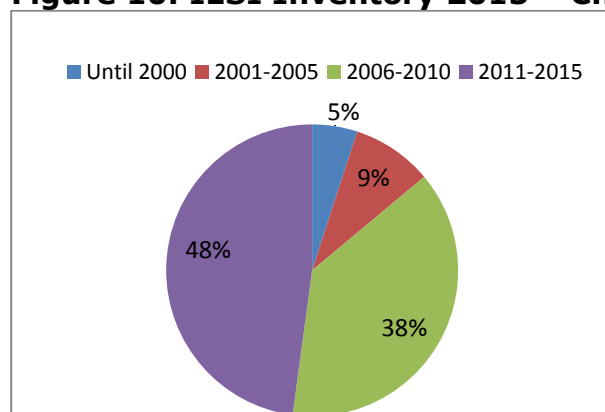
³⁴ Clearly the sample of cross-border initiatives is too limited to draw any conclusion yet. However, it will be interesting in future to look more closely at international initiatives to confirm if inter-welfare typology collaborations are more frequent than collaborations between countries falling in the same welfare typology group, and if it is possible to establish any trend in terms of transfers and contaminations, as well as similarities, between different welfare systems typology clusters.

³⁵ Although excluding such type of initiatives from the basin of candidates meant in some cases to exclude innovative experiments, especially at regional and local level, because of their difficulty of being scaled-up, often due to high implementing costs (and especially when targeted groups were very specific), this is a clear added value of the IESI research as it includes in its inventory and mapping only initiatives that have a real potential for adoption and concrete implementation, rather than being confined to the – unfortunately often present in such kind of exercise – 'wishful list of dreams and futuristic projects'.

³⁶ The values for the 2014 exercise are: 18% for initiatives started before 2000, 18% for initiatives started between 2001 and 2005, 44% for initiatives started between 2005-2011 and 64% for initiatives started between 2011-2014.

³⁷ See for instance the organisations mapped in the EU-funded Digital Social Innovation project and the project final report: (Digital Social Innovation 2015) available at <http://digitalsocial.eu>

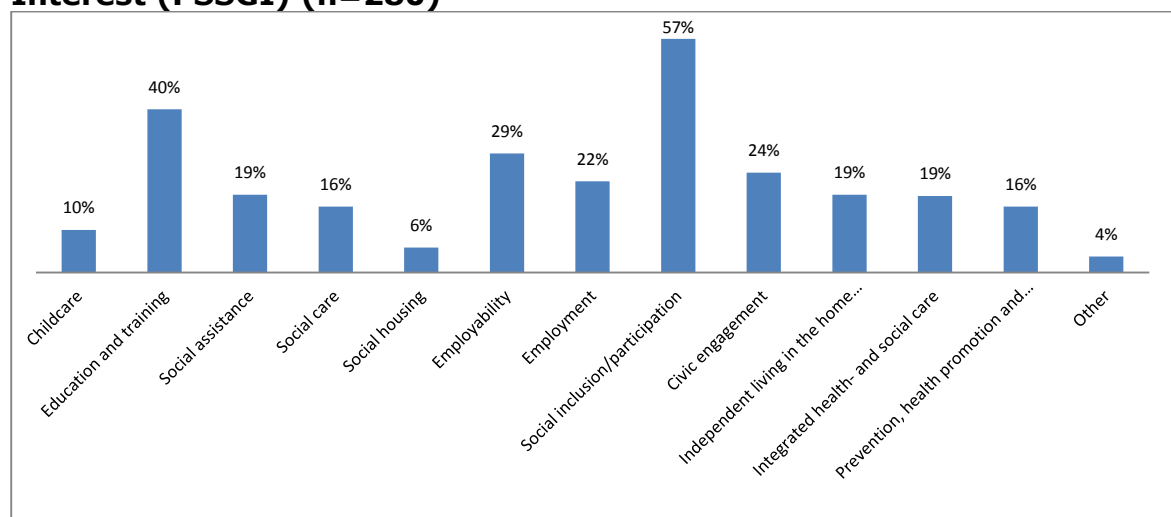
Figure 10: IESI Inventory 2015 – Chronology (n=280)



Source: own elaboration

Concerning the various **Personal Social Services of General Interest (PSSGI) covered**, as shown in Figure 11 the inventory includes ICT-enabled social innovation initiatives from each of the PSSGI areas defined (see Chapter 1).³⁸

Figure 11: IESI Inventory 2015 – Personal Social Services of General Interest (PSSGI) (n=280)



Source: own elaboration

The figure shows that **over half of the initiatives carry out activities in the Social Inclusion/Participation domain (57%)**. This is mainly due to the fact that most initiatives across all the PSSGI have a very strong 'social component', targeting disadvantaged groups of population in line with the IESI project focus. **Employment and employability follow closely, with over the 50% of the initiatives in the inventory falling in these categories.**

Education and training is another field where ICT-enabled social innovation plays an important role (40%), facilitating the provision of customised services to hard-to-reach groups of learners, and particularly to physically and mentally disabled people, but also to the long-term unemployed and to people leaving in rural areas and disadvantaged communities.

³⁸ PSSGI have been grouped into 10 areas. However, since the area of AHA-LTC is further split into 3 themes, we consider 12 areas for analysis purposes. Each initiative could address more than one PSSGI areas, and consequently the percentages go beyond 100%, as the basis here is the number of initiatives.

ICT enabled social innovation plays a key role also in the area of Active and Healthy Ageing and Long Term care for older people which includes initiatives in the Integrated health-and social care, Independent living in the home environment and Prevention, Health Promotion and Rehabilitation domains. Here both ageing and social service technologies play a fundamental role in enabling services which would not otherwise be possibly implemented. It must also be noticed that initiatives in the AHA-LTC area tend to be better documented in terms of impact achieved, mainly due to the input at both policy and funding levels from the European Commission.³⁹ The availability of a broad knowledge base including well documented case studies has also started to facilitate the transfer of practices from a country to another.

Civic engagement is another area where the potential of ICT enabled social innovation appears to be high, both in terms of allowing reaching and engaging citizens and in terms of transparency and democratic participation. However, the link between civic engagement initiatives and the social sphere is sometimes difficult to be traced, as many initiatives target public services in general and not social services in particular. In addition, there is a relative scarcity of indicators allowing to measure civic engagement initiatives' outcomes in relation to SIP priorities.

Social care and social assistance are also domains in which ICT enabled social innovation is increasingly widespread, representing the 19% and 16% of the initiatives in the IESI inventory 2015 respectively.

Instead, **Childcare and Social Housing are the two PSSGI areas where finding relevant initiatives proved more difficult.** Around the 10% of the initiatives in the inventory target Childcare. This relative scarcity is probably due to the fact that the use of ICTs in providing services outside the home-environment to children below compulsory school age is not yet wide-spread in any EU country, both because of the high costs and scarce availability of children-specific technology in most EU languages (Formby 2014).

As for **social housing**, in spite of the efforts to find initiatives in this field both through desk-research and through professional networks, it was not possible to find more than a handful of initiatives targeting this PSSGI, representing the 6% of the total sample. There are several reasons that can explain this shortcoming. In the first place, social housing is not yet very widespread in Europe: according to Eurostat data, less than 10% of the EU population paid reduced rates on housing in 2013 (EUROSTAT 2015b). In addition, social housing is very common in some countries where ICT-enabled social innovation is relatively rare (such as Malta, Greece or Bulgaria) and almost non-existent in countries where ICT-enabled social innovation is relatively widespread as in Sweden, Denmark, or the Netherlands. The exceptions are the UK and Finland (where in fact we found most relevant cases) (EUROSTAT 2015b). The initiatives documented as part of the 2015 mapping exercise seem still indicate that **ICT-enabled social innovation has a huge potential to foster both quality and cost-effectiveness of social-housing services, and particularly in terms of promoting integration of services and active inclusion strategies.** So for instance, social housing and services provider AmicusHorizon, responsible for the management of 28,000 houses in London and the South of England integrated in its existing CRM system the financial inclusion app 1st Touch (www.1sttouch.com) in 2013 to allow financial inclusion officers to access anywhere and anytime all the relevant information concerning tenants, enabling them to

³⁹ For a general overview on European ageing policy see (Ervik & Lindén 2013). Research and best-practice exchanges are funded by the European Commission under the following programmes and initiatives: The European Innovation Partnership on Active and Healthy Ageing, The Ambient Assisted Living (AAL) Joint programme, the Joint Programming Initiative 'More Years, Better Lives', the Neurodegenerative Disease Research Joint Programme (JPND), Horizon 2020, the EU Health Programme, the Innovative Medicine Initiative. European strategies which have a focus on ageing are: Digital Agenda for Europe; eHealth and Ageing, European Disability Strategy 2010-2020, eHealth Action Plan 2012-2020.

identify customers who might struggle to pay their rent in advance, and to automatically schedule appointments to discuss possible solutions directly with them. This might include reviewing training opportunities for those keen to return to work or identifying unclaimed benefits. This has resulted in £1.7million of additional income for residents in benefits claimed and into a reduction of arrears from 3.71% to 3.39 % in a year. In addition, the app has greatly contributed to raise both officers' productivity (each officer is able to achieve two more visits a day) and customers' satisfaction rates.

In conclusion, while the 2015 Mapping was successful in addressing most of the gaps of the 2014 mapping exercise, it also confirmed that levels of deployment of ICT enabled social innovation initiatives promoting social investment through integrated approaches to social services provision is uneven across member states and PSSGI areas, and that evidence of impact achieved is hard to find outside the UK and Nordic countries.

4. Enriching the IESI conceptual framework

This chapter discusses the IESI Conceptual Framework which underpins the research and has been used to guide the mapping and analysis of initiatives. The Framework originally developed by Misuraca et al., (JRC Science & Policy Report 2015) is first 'contextualised' by discussing it in relation to the main characteristics of different EU welfare systems and social services delivery models. Then the main dimensions of analysis which compose the Framework are revisited and suggestions for some additional dimensions are proposed. This enriches the analysis by taking into account evolving theoretical approaches which aim to better explain the implications that ICT-enabled social innovation initiatives have, or may have, for social policy reforms.

The objective of this chapter is to deepen our capacity to interpret the dimensions of the IESI Conceptual and Analytical Framework. It adds to the extensive theorisation that led to the original framework presented by Misuraca et al. (2015b).

One of the limitations identified in the first phase of the IESI research was the lack of a 'contextualisation' of the analysis in different welfare systems and social services delivery models (see Misuraca et al. 2015b). In order to address this gap and further validate the proposed conceptual and analytical framework for the IESI research, the need to apply it to a larger set of initiatives and discuss findings and implications with regard to the various characteristics and modus operandi of countries belonging to different welfare systems had been identified. The analysis of the application of the Framework to a more robust set of initiatives will be presented in Chapter 5. Meanwhile, in this chapter, the Framework is revisited, taking into consideration possible interesting relationships between its specific dimensions. These relationships are then linked to existing theories and studies which were only partially addressed during the original conceptualisation of the Framework in 2014.

4.1 Contextualising IESI within the EU welfare systems 'complex'

As anticipated above, one of the main gaps identified in the first IESI mapping exercise was the 'lack of references to different welfare system typologies. There is little information available about their influence on the presence and characteristics of ICT-enabled social innovation initiatives which promote social investment through integrated approaches to social services delivery across the EU (see Misuraca et al. 2015b). To address this gap, two dedicated supporting studies were commissioned by JRC-IPTS in order to prepare the ground for the second 'round' of mapping, namely: 'Analysis of the role of ICT-enabled social innovation for social services provision in different welfare states' and 'The role of ICT-enabled social innovation which promote social investment to support the modernisation of social protection systems in the EU'.⁴⁰ Based on these two supporting studies, and building on (Esping-Andersen 1990), (Sapir 2006) and (Hemerijck 2013), **for the purpose of the mapping and analysis conducted as part of the IESI research, the 28 European Union Member States have been recategorised in five groups according to the main characteristics of their social protection systems.** For each 'cluster', a brief description of the main features of the social services delivery model⁴¹ is provided below. There is also a discussion, from the perspective of social investment policy implementation and the role of third sector

⁴⁰ The two studies are conducted under the supervision of JRC-IPTS and commissioned to The Young Foundation and KPMG respectively. The studies are still ongoing and they shall be concluded before end of 2015 and final results will be integrated in the next phase of the IESI research.

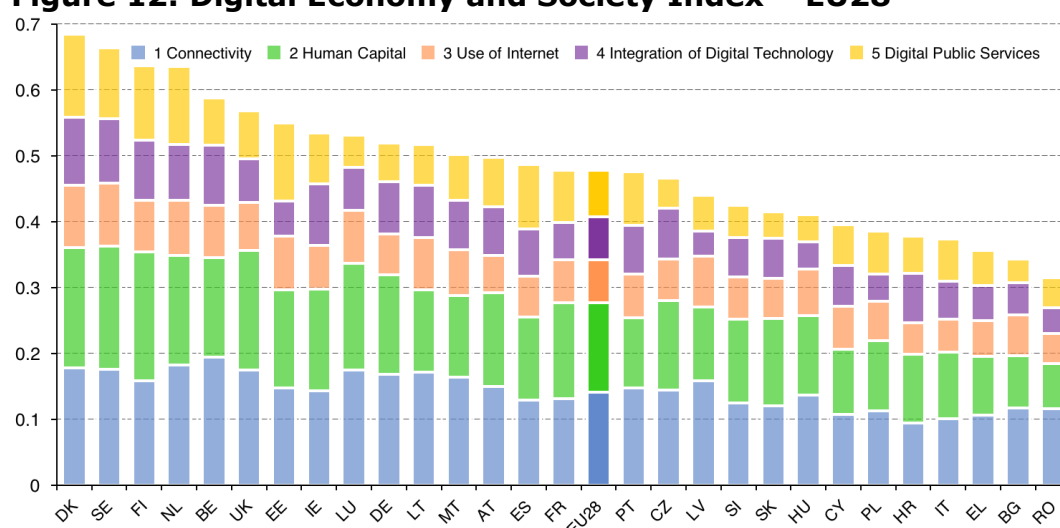
⁴¹ The expression 'social service delivery model' usually refers to the organisational arrangements among providers and between them and consumers of social welfare benefits in the context of the local community (Gilbert and Terrel 1998).

organisations, about which of these organisations are considered important players that can enable social policy innovation.⁴² Their level of ICT development is also discussed

Of course, ideal types must be constructed with care, despite their significant usefulness for systematising a number of important dimensions that characterize the social world. Several aspects must be considered before building a balanced typology: i.e. the boundaries between the cases, clearly articulated analytical dimensions and above all the crucial distinction between ideal types and real cases. One of the greatest risks in using typologies is indeed to confuse the "real cases" with the ideal types. This happens when an empirically-observable group of countries is confused with conceptually-derived typologies (Rieger, 1998).

Moreover, in order to understand the specificities of the different clusters of welfare systems models with regard to the deployment of ICT-enabled social innovation, it is worth looking at how different EU countries in each group perform against the **Digital Agenda Scoreboard**, and particularly against the **Digital Economy and Society Index (DESI)** (Figure 12). DESI is a composite index which includes 5 main dimensions (i.e. i). Connectivity, which measures the deployment and quality of broadband infrastructure; ii). Human capital, which measures basic and advanced ICT skills usage and development; iii). Use of the Internet, relating to contents, communication and transactions; iv). Integration of digital technology, in terms of levels of business digitisation and eCommerce; and v. Digital public services, measured through the availability and take-up of eGovernment and eHealth services).

Figure 12: Digital Economy and Society Index – EU28



Source: European Commission, DG Connect – Digital Agenda Scoreboard⁴³

⁴² The concept of policy innovation has been promoted by the European Commission in the context of the implementation of the Social Investment Package (SIP). It refers to social investment approaches that provide social and economic returns and it is linked to the process of reforming social protection systems and social service delivery through innovative systemic reforms (see: 'Testing Social Policy Innovation', DG EMPL., 2014). On the relation with ICT-enabled social innovation see JRC Science & Policy Report, Misuraca et al., 2015.

⁴³ According to their performance, EU countries are grouped in high, medium and low performance clusters: Denmark, Sweden, The Netherlands and Finland are the most performing countries, leading not only at EU, but also at global level in the digital arena. Belgium, UK, Estonia, Luxembourg, Ireland, Germany, Lithuania, Spain, Austria, France, Malta and Portugal belong to the medium-performance group. The Czech Republic, Latvia, Slovenia, Hungary, Slovakia, Cyprus, Poland, Croatia, Italy, Greece, Bulgaria and Romania are the slow performing countries. (European Commission 2015a).

Four of the DESI dimensions are particularly important for better understanding how contextual factors affect the deployment of ICT-enabled social innovation. These are: connectivity, access to the Internet, human capital and digital public services. In fact, **lack of reliable, quick and affordable broadband and limited access to the Internet negatively affect all the activities based on the use of the Internet**, from e-learning to collaboration and matching platforms, to shared case management systems.

This is often the case in deprived and rural communities, particularly in Eastern and Southern countries and it strongly and negatively affects the development of ICT-enabled social innovations by local authorities and third sector organisations. The same considerations apply to human capital. Given that many personal social services target disadvantaged groups, **the use of ICT-enabled services is often hampered by the users' limited ICT skills** (the skills of service providers are also limited in many cases). Furthermore, **the digital public services indicator gives us an idea of how many people are already using e-public services**, and would therefore be potentially able to take part into ICT-enabled social innovation initiatives. In addition, **where governments are highly digitalised, collaboration and integration of services through shared database is more likely to happen**.

With the partial exception of the Mediterranean and Eastern welfare clusters, levels of ICT deployment are very similar within single welfare groups. as we see below.

4.1.1 Nordic

Nordic countries (Denmark, Finland and Sweden) enjoy mostly universal, tax-funded, highly centralised welfare state systems. Labour market participation is very high, as are the rates of women in employment. High unemployment benefits are associated with active labour market policies, which make provision for skills up-dating, and strong unions guarantee high levels of collective bargain coverage. Efforts have been made over the last few decades to improve service delivery and take-up, even though cutting administrative costs is increasingly becoming a priority. According to (EUROSTAT 2015c), social expenditure in 2013 amounted to 34,6% of GDP in Denmark, 31.2% in Finland⁴⁴ and 31.1% in Sweden. In 2010, social investment accounted for around the 25% of the total social expenditure, well above the EU average (which is 21%) (European Commission 2013a).

Third sector organisations are highly professionalised and have a long tradition of collaboration with the public sector. Social enterprises are still relatively rare, but both Denmark and Sweden are looking at them with increasing interest. In both countries, policy frameworks and targeted programmes and institutions are being put in place to promote them. Finland has consciously chosen to establish equal opportunities for social enterprises and for-profit businesses.

Nordic countries score well above the EU average on all the Digital Economy and Society Index (DESI) indicators. They are the 3 best performing countries in the EU, with particularly high scores in the human capital and e-government areas. Over the 80% of the population used e-government services in 2013 in Denmark, almost 80% in Sweden and 70% in Finland (against an EU average of around 50%). Around 90% of citizens in all Nordic countries are regular internet users and have internet access at home and around the 70% of the population uses ICT in the workplace (European Commission 2015a).

4.1.2 Anglo-saxon

In English speaking countries (UK and Ireland), the liberal approach has limited the role of the State to taking care of acute market failures, and has encouraged wide take up of private welfare provisions. The focus of reforms has been for many decades on reducing

⁴⁴ For Finland the last data available is for 2012.

administrative costs while enhancing intra-agency communication in order to support front-line service providers. Improving services has achieved greater speed (which is directly linked to higher productivity and, as such, is beneficial for the institution and for the service recipient) and greater accuracy and performance evaluation (the final aim of which is to reduce fraud and consequently this is also in the interests of both the institution and recipients). In this system, while education and health are still mainly publicly-funded, social benefits have become increasingly work-related.

As a consequence, both inequality and in-work poverty have been rising over the last decades, with certain categories – such as immigrants and single mothers – disproportionately affected. Industrial relations are poorly coordinated, with moderately strong unions and low levels of collective bargaining coverage. Both countries spend more than 29% of their GDP on social policy, but social investment policies are not particularly developed. In 2010, social investment in Ireland was about 7% of GDP (near the EU average of 7.5% of GDP) and, in the UK it was around 6% of GDP (slightly below the EU average) (European Commission 2013a). Though activating measures and long-life-learning are relatively widespread, Child Education and Care (CEC) and family policies are underdeveloped. In both countries, a very well developed social enterprise sector, and a number of private providers are very active on the social investment field, particularly where employment, education and training and home-care/long-term-care are concerned.

ICTs are widely used in and outside government, and the public sector has been a proactive promoter of ICT-enabled social innovation, making available both funding and capacity building measures for the private and third sectors. Both the UK and Ireland score above the EU average according to the DESI Index, but while over 95% of citizens in both countries are regular Internet users, only 63% of Irish and 55.6% of UK citizens used e-Government services in the last 12 months (European Commission 2015a).

4.1.3 Continental

The continental welfare system includes Austria, Belgium, France, Germany, Luxembourg and the Netherlands. These countries are traditionally based on a male-bread winner/ female-carer model, with a mix of statist, corporatist and familialist traditions. Social protection is high for people with stable, lifelong employment, but is relatively low for everybody else. Rigid employment guarantee and regulation exacerbate the disparity between the employed and the unemployed. Social insurance and social assistance are conveyed separately and by different sections of the government. The same benefit can be offered by a number of social security institutions, which are usually divided according to geographical area or occupational grouping (Bolderson and Mabbet 1997, Eardley et al. 1996). This means that reform efforts have mainly targeted inter-agency communication and improvement of the quality of services delivered. Most countries in this group, notably France, Germany and the Netherlands, have implemented a number of reforms to enhance women's participation in the labour market, but labour market rigidities are still high. All the countries in this group but Luxembourg have well-established social investment policies in place, and in 2010 invested more than 7.5% of their GDPs in them (European Commission 2013a).

This system has a large social economy sector, highly professionalised but traditionally dependent on the public sector for funding. It is becoming increasingly entrepreneurial and diversified, often because funding is lacking or thanks to regulatory incentives from the state. The use of ICTs, including take up of e-Government services, is largely above the EU average for all countries for most Digital Agenda indicators. The Netherlands and Belgium are performing particularly well and rank fourth and fifth respectively in the DESI index, just after the Nordic Countries and just ahead of the UK and Ireland (European Commission 2015a).

4.1.4 Mediterranean

The Mediterranean rim (Greece, Spain, Italy, Portugal, Cyprus, Malta) presents, in many ways, an extreme form of the Western European model, with extremely low employment rates for women and young people when compared to other European regions. Pensions expenditure are very high, labour markets are rigid and benefits are strictly associated with stable, long-life employment and are highly fragmented. The crisis has exacerbated the situation, and social protection systems are struggling to adjust to significant cuts in public spending. Additionally, with the exception of Cyprus, all the countries have below average levels of social investment, even though Portugal, Malta and Spain are putting in place dedicated policies in certain social investment fields (European Commission 2013a).

In Italy, Spain, Greece and Portugal, the third sector is traditionally overly dependent on public-sector funding. However, social enterprises are developing fast to meet the increased social needs of the population and the lack of public funding. Public-private-third sector partnerships are increasingly common, and new social ventures are often ICT-enabled. The situation is very different in Cyprus and Malta where the third sector is mainly dealing with civic engagement and advocacy activities and is often dependent on international organisations. With the exception of Spain, the countries in this group have lower than average take-up of e-Government services and regular Internet use is also below EU average in all the 6 countries (European Commission 2015a).

4.1.5 Central-Eastern

Central-Eastern European states (Bulgaria, Croatia, the Czech Republic, Estonia, Latvia, Lithuania, Hungary, Poland, Romania, Slovenia, Slovakia) have low social protection spending (while all pre-2004 Member States except Luxembourg spend at least 25% of their GDP on social protection, all post-2004 Member States spend less than this, with Baltic countries averaging 16% of GDP in social expenditure) (Vandierendonck 2014). Low labour costs are intended to attract direct foreign investment and industrial relations and union movements are nearly non-existent. Poverty and social exclusion, and a low skilled labour force, are perceived as the main challenges ahead. The situation is very diverse concerning social investment: the share of social investment-oriented social expenditures is higher than 25% in the Baltic Member States (EE, LV and LT), even though this situation is not mirrored by the presence of dedicated public policies. Hungary, Slovenia and Poland also have relatively high levels of social expenditure and related policies are increasingly well-established. Croatia, the Czech Republic, Romania and Slovakia, however, continue to score poorly in both categories (European Commission 2013a).

As in the Nordic countries, social enterprises constitute a relatively new phenomenon. While EU input (and funding) has contributed to raising policy makers' awareness, most public-funded initiatives either target traditional organisations such as Work Integration Social Enterprises (WISEs) or aim to build capacity and infrastructure as a precondition for the establishment of a social enterprise sector. Unlike the Nordic countries, there is no strong third sector which could be used to partner with the public sector for the delivery of public services. This further threatens the development of social enterprises and is only partly compensated for by the stronger presence and proactivity of the private sector (many large companies CSR programmes are sustaining social economy organisations) and international organisations such as UNDP and USAID. The legacy of the communist period, together with a series of recent scandals linked to the misallocation of public funds, has further undermined efforts in this sense. With the exception of Baltic countries (and particularly Latvia and Lithuania) and to some extent the Czech Republic, existing social enterprises in these countries are heavily reliant on public funding – mainly EU or international/private organisations funding – and generate less (and often considerably less) than 40% of their income through trading.

As for digital services, the situation is very fragmented. Some countries (Latvia, Slovakia, and Estonia) scoring well above and others (Lithuania, Slovenia, the Czech

Republic, and Hungary) just slightly below the EU average for regular use of the Internet and e-Government services uptake (here, Latvia and Slovenia are above the EU average and Hungary and Slovakia are just below). The remaining countries score well below the EU average in both categories (European Commission 2015a).

The characteristics of different welfare systems and their social service delivery models, and the levels of ICT development of each group of countries will be analysed further in Chapter 5. To this end, some hypotheses on how to link these elements to the IESI conceptual and analytical framework and the variables of the data gathering template designed for the mapping will be discussed in § 4.3.

4.2 Revisiting the IESI conceptual framework

4.2.1 Deepening the link between ICT-enablement and social innovation

The magnitude of today's societal challenges requires solutions that build upon the capacities of established social-sector organisations and emerging organisations such as social enterprises, start-ups or non-profits. **ICT-enabled social innovation is the key to facilitating the establishment and functioning of partnerships which can bring together different service providers to effectively tackle these challenges.** As highlighted by Misuraca et al. (2015b), technical innovation is not sufficient *per se* to modernise social protection systems: barriers to the adoption and take-up of digital services, and the limited impact achieved are usually a consequence of organisational shortcomings and cultural reasons. This is the why it is important to associate ICT-enabled innovation to social innovation. In order to be successful from the beneficiary's perspective also, technical innovation needs to contribute to the creation of public value. Thus it should be achieved and sustained through cultural change, trust between service providers and beneficiaries, multi-sectoral and multi-disciplinary partnerships and collaborative design, implementation and evaluation of services.⁴⁵

The IESI conceptual framework developed in 2014 by Misuraca et al. (2015b), aimed exactly to 'make sense' of this relationship, and also to operationalise the links with innovation in social services delivery and the potential transformative effects ICTs can have on social policies when adopting a social investment perspective. In this respect, the IESI conceptual framework is grounded in the theoretical orientation of the **Public Sector Innovation** debate (see Misuraca and Viscusi, 2015). Considering that the potential of ICTs is by and large determined by the setting in which they are implemented and by the objectives prioritised by the organisations operating in that setting, it is important to understand how different partners cooperate and how networks are established to create public value.

There are considerable differences in how the role of the welfare state is understood. It can prioritise, for instance, either (1) social services, (2) cash or tax benefits, (3) employer provisions or (4) the volunteer and informal sector (Adema & Whiteford 2010). There are also different attitudes towards the role of ICT-enablement and social innovation. **Different partners in the provision of PSSGI bring different 'ways of doing things' and existing infrastructures to the table, which in turn influence their needs for social innovation and/or ICT-enablement.**

At the same time, from a policy perspective, it is likely that multiple innovations on different levels (macro-, meso- and micro) need to be implemented in combination in order to achieve the goals of the Europe 2020 agenda and the specific objectives of the Social Investment Package (SIP). In the IESI research, the three implementation-levels,

⁴⁵ This trait emerges with particular strength if we look at the comparison of the use of ICTs in different social security systems carried out by Henman and Adler (2003) which concluded that ICTs are more often used to strengthen the governance of organisational processes by giving greater powers to management than to empower subordinates, whether these comprise staff or claimants. This finding is consistent with literature on the use of ICTs in organisations (see e.g. MacKenzie and Wajcman, 1999).

which need to be aligned in order to make ICT-enabled social innovation a success, can be distinguished as follows:

- the **macro level**, primarily comprised of policies, regulations and related strategies concerning the various PSSGI areas;
- the **meso level**, referring to the different 'social systems' and types of organisations operating in the 'ecosystem' and also their interactions and partnership-models;
- the **micro level**, referring to the groups and individuals within the organisations and more specifically their interests, capacities and available resources, which can either push or slow down the implementation of the ICT-enabled social innovation.

Insights into the impact of ICT-enabled social innovation initiatives at the **macro level** will emerge more strongly through the on-going research activities: i.e. more in-depth case studies and 'scenarios of use'.⁴⁶ However, the current mapping repository offers interesting variables from this point of view, particularly those which concern SIP priorities and policy objectives and related social and economic outcomes.

The **meso-level** will also be better understood by looking at organisational processes, performance and relationships as part of the case studies and through the testing of the impact assessment framework (i-FRAME)⁴⁷ being developed as part of the IESI research. At this level, an interesting hypothesis was raised in recent literature as to whether private providers will push more forcefully for ICT-enabled social innovation than the public sector and thereby gain a competitive edge in terms of service quality and efficiency.

With respect to the **micro-level**, ICTs are known to relate to social change in multiple ways, often having a rather indirect influence. Hence the enabling functions of ICTs need to be seen in the context of how human practices are formed (Giddens 1979).⁴⁸ These contextual cues can, for example, concern the way we share our opinions, search for information, make decisions or engage with others who share our problems or insights. The use of ICTs is here a case in point, as it does not follow that rule because technically people can share their knowledge in electronic form (Sewell 1992). In this sense, the enabling function of ICTs depends on people's acceptance of new practices or changed practices, as 'old habits' can easily become a barrier for innovations. Eventually, target groups will be required to embrace new and unknown technologies (e.g. robots taking care of older people or replacing fiat money with crypto currencies and so on).⁴⁹

⁴⁶ Study on 'The role of ICT-enabled Social Innovation promoting social investment in support to the modernisation of Social Protection Systems in the EU' commissioned by JRC-IPTS to KPMG as part of IESI WP3. This will also be complemented by specific 'Scenarios of Use' for the testing and validation of the i-FRAME as part of IESI WP2. In fact, apart from the influential role of 'human practices' and 'human expectations', there are specific effects that will be investigated in more detail in WP 3 - Thematic Analyses of IESI, and that will allow us to better understand what barriers and enablers can hamper or facilitate the raise and spreading of ICT-enabled social innovation.

⁴⁷ The latest output of the IESI project presents the methodological foundations of the "i-FRAME", an operational framework under development to assess the social and economic impact of ICT-enabled social innovation initiatives promoting social investment in the EU (Misuraca and Kucsera (Eds.), 2016).

⁴⁸ Giddens describes recurrent social practices as regulated by rules and resources people derive from what they observe on a day to day basis.

⁴⁹ Faraj refers to a sense-making process that happens when users adopt novel technologies. Elements of that sense-making process are 'beliefs about what technology should do', 'evaluation routines about what the technology does' and 'strategic moves to use technology for personal advantages' (Faraj et al. 2004).

4.2.2 Understanding the role and implications of ICTs in enhancing integrated services delivery: inter-linking governance levels and functional types

Improved coordination between providers of services has been highlighted in the IESI research as paramount to improve quality and efficiency of integrated social services (Misuraca et al. 2015b). The IESI framework operationalises the high-level concept of 'integrated social services' in terms of governance levels of service integration ('Who is collaborating?') and functional types of service integration ('What is the substance of collaboration?' ... shared funding, shared administration, shared personnel or shared information). In the end, **integrated services allow social innovations to cross boundaries between organisations within the same sector or across different ones.**

Who is collaborating in the provision of integrated services?

Partnerships between stakeholders of different sectors have become a popular means of enhancing governance and delivery of welfare services over the last few decades. Partnerships include relationships between local and national authorities (Fimreite & Lægreid 2009), the participation of social partners such as unions (Johnston et al. 2011) and the support of social enterprises or not-for-profit organisations such as charities and other non-governmental organisations (which are becoming increasingly important in designing and securing social services).

The role of the private sector is also changing, not only as a provider of specific services to public organisations, but also with regard to IT services. New services delivery models are being put in place with a growing sensibility to the need to provide personalised solutions in, for example, the care domain. Here, the boundary between social and health care is becoming blurred and somehow obsolete. ICTs play a crucial role in eliminating the classic divide between the 'verticals' of public services. They therefore require strict collaboration between different partners including users'. The role of users is becoming more important. With the increasing pervasiveness of wireless connectivity and advanced mobile devices, new actors are emerging who can actually erase the boundaries between traditional service providers and users. This is often facilitated by innovative – ICT-enabled- intermediary roles and technological platforms.

What is the substance of collaboration?

The involvement of third sector organisations is acknowledged as a means of increasing the capacity of the welfare state to deliver its services by reaching out to local communities and hard-to-reach groups of targeted service recipients. However, some critics contest deregulation and privatisation as they believe that service quality could suffer and third-sector organisations may get trapped in path-dependency, heavily relying on continuous governmental funding. As outlined in (Olsson & Nordfeldt 2008), on the one hand, not-for-profit organisations tend to be more closely involved and innovative when searching for solutions than highly bureaucratic public authorities. On the other hand, not-for-profit entities are easily overwhelmed if demand or acuteness of needs increases beyond their organisational resources.

However, these **inter-organisational issues often trigger ICT-enabled social innovation.** Collaboration between the public sector and not-for-profit organisations in particular, could go beyond contractual outsourcing of services. It could, for example, increasingly include the exchange of knowledge on developing customised solutions, using collaborative ICTs, social media, predictive analytics models or open data sets. The same applies to private partners, which are increasingly involved in new or innovative models of service provision. For instance, funds are increasingly being allocated to networks of organisations with shared goals and governance mechanisms, rather than individual enterprises (PWC, 2015).

From the perspective of the beneficiaries of social services, the **network effects enabled by ICTs** are even more powerful. For beneficiaries, 'networking' can be a source of empowerment and (increasingly) access to alternative life choices (e.g.

educational networks, networks of alternative economies, etc.). The unprecedented use of social media and the number of social media platforms which address specific issues related to social inclusion or social services delivery, or health care is continuously rising. This is partly captured by looking at how many initiatives in the IESI mapping dataset use Social Networking technologies and how this relates, for instance, to the number and typology of partnerships in place, to a specific beneficiary target group (for instance, young people) or to the use of volunteers (see Chapter 5 for more details). Another example that illustrates the potential of collaborative ICTs as catalysts for social innovation and innovation in social services, is the emerging phenomenon of '**crowdsourcing**'.⁵⁰ Crowdsourcing can be broadly defined as '*a collaboration model enabled by people-centric web technologies to solve individual, organisational, and societal problems using a dynamically formed crowd of interested people who respond to an open call for participation*' (Pedersen et al. 2013). Thus it can clearly be related to ICT-enabled social innovation. Though concrete examples of crowd-social service delivery have yet to emerge, they constitute an interesting future prospect to be considered, especially in light of the rapid take up of this kind of approach from a technological and socio-cultural standpoint.

4.2.3 Exploring innovation cascades and social systems dynamics

An important aspect of social innovation is the central role played by communities, collaboration and co-creation. The IESI definition of ICT-enabled social innovation as "*novel configuration or combination of social practices ... to establish new relationships or strengthen collaborations among stakeholders and foster open processes of co-creation and/or re-allocation of public value*" (Misuraca et al. 2015b) implies, through the reference to an 'open process', the notion of time during which a social innovation can be adopted, shaped and scaled up.

The existence of a time dimension suggests that **social innovations are processes that go through various stages, from the generation of an idea, to an intervention, to implementation and the generation of an impact** (see for example the '4-i-process', (Hochgerner 2012)).⁵¹ Padgett, J., and Powell, W., 2012, argue that innovation is not limited to the invention of new kinds of artifacts (products or services...). It also involves the processes through which new artifacts are conceived, designed, produced and integrated into patterns of use. These processes necessarily involve the construction of new patterns of interaction among agents. Hence the organisations involved are transformed into a specific 'ecosystem' that, in our case, is linked to the social systems in which services are delivered and various actors / agents operate.

In this sense, as put by (Lane 2013) **there is an inextricable linkage between the dynamics of change in the space of services (as innovation artefacts) and in the space of agents (as actors of the ICT-enabled social innovation ecosystem)**. These dynamics are mediated by the way in which the relevant agents/actors represent the contexts in which they act: in particular, their attributions about the identity of the other agents with whom they interact and the functionality of the services around which their interactions are organised.

⁵⁰ The term has been coined by (Howe 2006) and it means work is outsourced to the crowd. Rather than resembling a contract-like relationship, it involves a wide range of incentives (money, reputation, learning opportunities, networking etc). Examples include OpenStreetMap (charting navigable trails), Threadless (t-shirt design competition) and InnoCentive (solving R&D problems).

⁵¹ 1 'Ideation': Inventiveness and creativity lead to the proposition of novel concepts and measures; 2 'Targeted Intervention': Putting ideas into practise in response to a societal challenge; 3 'Organisation/Community-driven Implementation': propositions turn into innovations only when accepted and utilised by society; 4 'Impacting society': innovations create social facts which change the situation around a societal challenge.

This implies also that, as already anticipated in the first Mapping Report (see Misuraca et al, 2015, page 43) when analysing the initiatives mapped in the IESI database, single initiatives cannot alone explain the innovation dynamics triggered by such a complex and multi-network process. Instead, a systems approach should be considered which integrates a complexity theory perspective (e.g. Lane, 2007) and a multi-level and dynamic approach to innovation (e.g. Padgett, J., and Powell, W., 2012). Clearly, ICT contributes to this approach as both an enabling and a game-changing factor (see Chapter 3 and for a more extensive discussion Misuraca et al, 2015b).

The problem of assuming that innovations could be autonomous - i.e. independent of each other - has been taken up by (Lane et al. 2013) with regard to the specific context of social innovation. Traditionally, innovations are geared towards increasing consumption and generating profits that can be invested in further innovation. This focus on consumption leads to innovations being evaluated in isolation, neglecting their potentially negative effect on social justice or the environment. However, the systemic consequences of social innovation need to be considered. (Lane 2013) calls this 'cascades of innovation', which are characterised by ontological uncertainty. In other words, it is enormously difficult to anticipate the variety of social consequences that can come out of changing the social fabric of society. Put differently, social innovations are projects at the micro level that aim to induce new patterns of social interaction and transform social organisation at the macro level. Social innovators, concerned communities and policy makers should be aware of innovation cascades and exchange reflections on which social values they wish to pursue. They should then monitor whether the cascades of an innovation's consequences unfold as desired.

Moreover, this second round of mapping also confirmed the huge diversity of depth, rigour and amount of impact studies. It is important to stress that despite the lack of resources or the recognition that impact assessments are actually needed; it can be argued that different stages of innovations and their cascade-effects influence the ability to produce evidence of impact in different manner.

When ICT-enabled innovations are effectively implemented, and organisations and communities turn ideas into practice, innovations are accepted and utilised by society. This is the moment when impacts are produced and these innovations contribute to social change. For this to happen however, stressing what was underlined above, social innovations must be increasingly systemic, that is: *"benefits can be realised only in conjunction with related, complementary innovation"* (Chesbrough & Teece 1996).

Applying this to the IESI objective - the modernisation of social protection systems - requires a combination of ICTs and non-ICT enabled innovations, so that the potential (enabling or game-changing) capabilities of ICTs are fully realised. Systemic innovation processes often require an open innovation organisation model, as a single organisation would not be able to steer and coordinate the multiple efforts needed to innovate different parts of the value network simultaneously (Maula et al. 2006).⁵²

The difficulties of bringing about systemic innovations are multiple: under-investment due to the perceived lack of incentives in open innovation systems, lack of 'architects' who can steer the efforts of other innovators and ultimately a lack of knowledge about how to best attract other innovators to join the creation of systemic innovations (Maula et al. 2006).

Furthermore, and in line with (Seelos & Mair 2013), it is also argued that there is a tension between 'exploring innovations' (often radical innovations) and 'scaling innovations' (often through an incremental process). Even though most innovations need

⁵² Classic examples for systemic innovations are the electric light replacing gas lamps or, more recently, coordinating semantic web technologies and data integration for large communities such as life sciences, financial transactions or meteorological forecasts (Shadbolt, N., W. Hal, & Berners-Lee 2006).

to scale up and persist over a number of years to produce any evidence of their impact; both processes, exploring and scaling up, are needed and must be encouraged within organisations and partnerships. For one thing, the innovations we explore today may become the innovations we can scale up tomorrow. Scaling up innovations so that they can maximise their impact, often requires continuous innovation management and a combination of radical innovation and incremental change. Once a radical innovation has succeeded, incremental change can include standardisations, routinisation and formalisation. Yet, although smaller and less mature initiatives may have fewer opportunities to gather evidence that demonstrates their impact, they are valuable test-beds for scaling up innovations in the future. In addition, they may become necessary complementary innovations for other initiatives to succeed.

Despite the long-established theoretical foundations of 'impact' as such, there is no established practice as yet that evaluates or measures impact in the innovation field (particularly social innovation).⁵³ Some organisations (e.g. international organisations, large foundations, impact investors) have been engaged in measuring and quantifying impact for some time, though they often focus on their specific organisational contexts. Other organisations have mainly relied on qualitative 'story telling' approaches, merely describing funded projects without measuring the actual impact.

As a consequence, today, there are numerous indicators, guidelines and standards available, but there is little enabling infrastructure and standardisation for the measurement process and limited convergence around a common set of impact measurement practices. Although the IESI conceptual and analytical framework does not include a specific dimension to capture the 'systemic' effects produced by single initiatives, it is clearly a valuable starting point for developing an appropriate assessment methodology. In fact, the IESI conceptual framework underpins the design of the i-FRAME: a methodology for assessing social and economic impact of ICT-enabled social innovation initiatives that promote social investment, and were developed as part of WP2 of the IESI research (See IESI Deliverable 2 Draft proposal of i-FRAME V1.0, Misuraca et al, 2015a).

4.3 Extending the IESI analytical framework

After introducing briefly the welfare systems classification, we defined and operationalised for the analysis of the initiatives mapped (§4.1), discussing the various characteristics of different welfare systems and their social service delivery models. We also discussed the levels of ICT development in each group of countries. These two activities helped us to contextualise the findings of the mapping and better understand their implications (as we will see in §5.2). We also revisited in §4.2 the main dimensions of the IESI conceptual framework (Misuraca et al., 2015):

- the potential of ICT-enabled innovation and its relation to the key elements of social innovation with a specific focus on the open process of co-creation as possible multiplier/amplifier or catalyst of public value creation;
- the role of collaborative networks and multi-sector partnerships;
- the levels of governance of services integration and their functional types.

This allowed us to elaborate on the need to advance our conceptual framework⁵⁴ further by integrating some additional constructs. These would help us to better interpret the

⁵³ Conceptually, the notion of impact is often linked to the Theory of Change framework (Anderson, 2004), which describes the casual linkages through which the activities carried out by an organization will lead to the ultimate outcomes. In other cases impact is often determined as the portion of the total outcome that happened as a result of specified activities, above and beyond what would have happened anyway (Olsen & Galimidi 2009).

⁵⁴ As indicated earlier (§2), the full elaboration of the initial IESI conceptual and analytical framework can be found in Misuraca et al 2015b. However, at the end of this report the definitions of the main dimensions of the initial conceptual framework can be found for a quick

quantitative and qualitative differences of ICT-enabled social innovation initiatives implemented in different contexts and ecosystems and with respect to various PSSGI. These constructs refer to the notion of the 'cascades' of innovation that are particularly relevant to the phenomenon under investigation, and its relationship with social changes produced in the 'ecosystems' where innovations are actually 'adopted'. This systemic perspective is of crucial importance to make sense of the huge diversity in quality and availability of impact studies for the initiatives mapped. It also does the groundwork for the development of alternative approaches and instruments that could help us understand the social and economic impacts generated by ICT-enabled social innovation initiatives (see IESI draft D2 for more details on this).

In this respect, one of the objectives of the IESI research is to develop a methodological framework of analysis of the initiatives we have mapped and as a guide to conduct in-depth thematic analysis through case studies (in a different part of the IESI project). This will result in a structured approach to analysing ICT-enabled social innovation initiatives and provide insights for their replicability and transferability at policy/practice level across the EU.

To this end, the data gathering approach and the database currently under development as part of the IESI research will permit us to achieve this objective. Following the second round of mapping (2015) and after having validated – and further refined – our conceptual framework by applying it to a larger set of initiatives, a number of concrete suggestions for fine-tuning the data-gathering in the third round of mapping in 2016 and in view of a consolidated analysis of the entire sample of initiatives in the final phase of the research emerged.

In particular the IESI analytical framework could be 'extended' at two levels:

1) How do welfare systems/ social service delivery models and ICT deployment levels relate to the degree of deployment of ICT-enabled social innovation in different contexts?

It should be mentioned that the sample of ICT-enabled social innovation initiatives contained in the IESI 2014-2015 joint database is neither representative nor statistically significant. The search for data has followed a 'snowball' approach, so to make sure a balance in terms of geographical coverage, levels of deployment and initiatives addressing all PSSGI and all target groups would be achieved. The search has also several limitations in terms of language barriers and evidence-based needs, as well as the timeframe and novelty of the topic (see Chapter 2 for more details). Therefore, it is not possible – for the time being – to establish any direct link between welfare typologies and density/characteristics of ICT-enabled social innovation initiatives. Nevertheless several interesting hypothesis can be put forward by analysing in a comparative way the initiatives filtered by welfare typologies.

A preliminary analysis of this kind has been included in this report (see § 5.2), with a view to answering the following questions:

- *Do ICT-enabled social innovation initiatives within each specific welfare system differ as regards the scale of their implementation (local/regional/national), size (costs and staff) and maturity (chronology)?*
- *Do ICT-enabled social innovation initiatives within each specific welfare system prioritise specific PSSGIs or beneficiary groups?*
- *Do ICT-enabled social innovation initiatives within each specific welfare system have focal areas, as per Social Investment Package policy priorities and objectives?*

reference. The final report of the IESI project will provide the synthesized and finalized conceptual and analytical framework.

- *Are ICT-enabled social innovation initiatives within each specific welfare system delivered by different intermediaries (and particularly, what is the role of volunteers and informal carers in each welfare cluster)?*
- *Do ICT-enabled social innovation initiatives within each specific welfare system differ concerning levels of ICT innovation potential and social innovation? How? Do they present higher/lower levels of ICT-enabled social innovation?*
- *Do ICT-enabled social innovation initiatives within each specific welfare system differ as regards their levels of service governance and type of service integration? (Q20, Q21)? How does this relate to the major or minor presence and typology of partnerships and to the intervention of informal carers and volunteers?*

These questions will not only help us to understand if there are tangible differences between the initiatives in each welfare cluster, but also to gain further insights into how ICT-enabled social innovation might be influencing the adoption of the social investment approach within each clusters. This in turn will let us see whether they facilitate preventative approaches and investment in human capital, active participation of service users and multi-sectorial partnerships for service delivery.

This line of reasoning will be further developed in the complementary components of the IESI research (namely WP2 and WP3): i.e. in-depth case studies and the analysis of specific 'scenarios of use'. It will also be embedded more specifically in the next round of mapping in 2016. Further variables and/or specific questions to be addressed will be included in order to shed light on the fundamental issues related to the context-dependency of ICT-enabled social innovation initiatives that promote social investment to support the modernisation of social protection systems.

2) What are the multiplying/amplifying effects generated by ICT-enabled social innovation and how can they be captured systemically?

With regard to the second possible extension of the IESI analytical framework, it is important to note that many of the variables and questions already present in the IESI data gathering template may serve as 'proxies' for understanding some of the issues related to the 'process' and 'impact' of ICT-enabled social innovation. However, it would probably be only through in-depth case studies and scenarios of use that this relationships may be made explicit and better understood.

In this perspective, although a first attempt to analyse these relationships has already been made (see § 5.3), we consider it useful to integrate additional specific variables in the next round of mapping in order to address the issues and questions below for further analysis:

First of all, in order to **deepen our understanding of the link between ICT-enablement and social innovation** (see § 4.2), information on *which type of social service technology has been used* is already available in the IESI mapping database. This allows us to draw some conclusions on the relative importance of different technologies, in order to link social innovations with specific enabling, technology-based conditions. However, more specific variables on possible technology effects on a larger scale should be included (e.g. such conditions influencing the development of innovative practices can include Internet connectivity, availability of work forces with the required expertise or the over- or under-regulation of organisations and entrepreneurs acting in a specific area of PSSGI). Thus it may be worth exploring the following questions:

- *How are improvement goals from the service provider perspective and social innovation types related? (Data are already available in the IESI mapping database).*
- *Do initiatives implemented by private and third sector actors present higher levels of technological or social innovation? (Data are already available in the IESI mapping database).*
- *Are specific social innovations more frequently enabled by some technologies rather than others? For example, it can be argued that given different social*

innovation types, engaging with PSSGI beneficiaries in order to co-produce social services may require more interactive technologies than simply reaching out to beneficiaries. (Some data is already available in the IESI mapping database).

- *Do specific improvement goals match better with some technologies than others? A focus on efficiency goals could imply a preference for innovating back-end technologies and data related innovations (big data, open data, crowd sourced data). (Similar to the previous question, a technology-centred question like this would require each case to subscribe to some categories within a previously agreed set of technology-based enabling factors. Some data, however, - e.g. on the use of social networking and social service technologies - are already available in the IESI mapping database).*

Furthermore, the **networking effect** (see § 4.2) needs further consideration. Given the different objectives and actors participating in social service delivery, and considering that networks enable the propagation of information, the sharing of efforts among multiple members of a network and the flow of affective support, it would be worth asking the following questions:

- *How do specific PSSGI areas relate to specific levels of service integration?*
- *Are there some groups of beneficiaries which benefit more often from ICT-enabled social innovations than others?*
- *How many initiatives use social networking technologies and how do these relate to the number and typology of partnerships in place, to a specific beneficiary target group (for instance young people) or to the participation of volunteers and informal carers?*

Moreover, it might be worth introducing further specific variables to look at how ICT-enabled social innovation initiatives use social media or other collaborative technologies to: i) provide new or different services; ii) find partners for the delivery of services, knowledge exchange, and funding; iii) find or incentivize/retain volunteers. It could also be useful to add a specific variable to see how many initiatives use **crowd-sourcing** to: a) acquire skills, and b) acquire funding, and to what extent.

Above, we have defined the '**innovation cascades**' of **ICT-enabled social innovation**, and how these evolve within specific ecosystems so to better appreciate the **processes and the scale of innovation and its impact**, (see §4.2). It is indeed difficult to capture the trajectories or cascading effects of specific ICT-enabled social innovations. However, as a proxy, a preliminary analysis could look at the way innovations are implemented purely within the ICT domain. For instance, addressing the following questions would be useful for further analysis (using some of the variables included in the IESI mapping database, or developing new ones):

- *Are there ICT-enabled innovations that mutually support each other and need to be implemented in combination? And how do the actual benefits of ICT-enabled social innovations compare with the expected ones? What barriers have innovators encountered when they attempt to take their initiatives to the next level?*
- *How does the applied impact measurement methodology relate to implementation level or number of people involved? Of course, the actual decision about whether an organisation wants to engage in, or can afford a rigorous impact study is dependent on multiple factors, not least the perceived need for impact measurements. However, it seems likely that the scope of the initiative, ranging from local or regional up to European implementations of services, will be an indicator which could have an influence on the way impact measurements are executed.*

Additionally, a crucial aspect to analyse further in order to better understand the nature and impact of ICT-enabled social innovation resides in the capacities of the organisations that implement or support the social and economic processes associated with it. Hence,

it may be worth exploring the tenets of economic theories that could serve this purpose, such as the **institutional theory**. The analytical elements outlined in this theory allow the researcher to understand the distinct qualities at the organisational or institutional level in terms of how an organisation functions, what role it plays in the community it serves, the resources available to it, and how it manages change and adaptability to new circumstances. It is a useful theory for studying ICT-enabled social innovation and the implications it has for social systems because the ways in which institutions operate bear directly on the long-term value, sustainability, and scalability of digital technologies (Madon, et al., 2009, 97).

This brings us to argue that **principles of the economics of innovation could shed light on specific impacts generated by ICT-enabled social innovation**. These principles could be especially relevant to "transformative innovation" such as the potential use of **Big Open and Linked Data (BOLD)**.⁵⁵ As a matter of fact, given the production and access to large amounts of diverse data, public sector agencies are predestined to be beneficiaries of big data analytics and associated data-driven / evidence-based decisions.⁵⁶ A McKinsey study in 2011 identified cost reduction opportunities of up to 15% (or €250 billion) by applying big data technologies and data analytics to administrative areas in public sector agencies (McKinsey & Company 2011). Similarly, current emerging trends in the area of digital technologies, such as the ones defined by (Zittrain 2008) as **generative technologies** may be the key to understanding the success of the Internet and subsequent web-applications,⁵⁷ including those with a strong social and collaborative component.

To be more concrete, the main bulk of information collected within the IESI mapping is primarily focused on the organisational and inter-organisational level. As a result, trajectories of ICT-enabled social innovations or barriers encountered during implementation will be captured mainly through qualitative case study analysis and scenarios of use.

However, as mentioned above, it may be possible to explore how to consider in the analysis certain elements of institutional theory, particularly New Institutional Economics. This is a theoretical perspective common to different approaches, among which transaction cost theory and the new institutional theory (North, 1990; Rowlinson, 1997; Rutherford, 1996; Williamson, 1975, 1981, 1985, 1996, 2002) could be relevant for our research. Both approaches share the idea that institutions and institutional (legal) assets, through the influence of economic micro-behaviours of single agents and

⁵⁵ Data-driven decision making has been demonstrated to significantly impact productivity (Brynjolfsson, E., Hitt, L. M., & Kim 2011). Big data is not only to make organisations more efficient, it's also used to better understand customers' needs or anticipate unintended consequences of market interventions. In this regard it may be worth also introducing a new variable to understand if and how ICT-enabled social innovation initiatives use big data and data analytics.

⁵⁶ On this see also Misuraca et al., 2014, Policy-Making 2.0: Unleashing the Power of Big Data for Public Governance, in Open Government: Opportunities and Challenges for Public Governance, edited by Mila Gasco, Springer Publisher http://rd.springer.com/chapter/10.1007/978-1-4614-9563-5_11

⁵⁷ The term was coined by (Zittrain 2008) who defined generativity as a "system's capacity to produce unanticipated change through unfiltered contributions from broad and varied audiences". Underlying the importance of generativity as an enabler of innovation from the outside is a distinction between proprietary and open application standards, where 'open' means that everyone can use or repurpose a given online technology (e.g. Internet protocols) if so required by the software solution they are about to develop. Another concept that may be worth exploring is that of democratised production which has been revitalised by the current thinking around **digital commons** (Benkler 2006) which are considered an opportunity to provide the necessary economic and regulatory stability to the workings of open source developments, fabrication laboratories as well as novel employment models based on the 'sharing economy' or 'micro tasking' which are a crucial part in many ICT-enabled social innovations.

single organisations, also strongly affect economic performance, inter-organisational relationships, and the form and path of innovation diffusion. In this respect, as in economics, and in particular in consumer choice theory⁵⁸ we could consider what the **substitution effect** of ICT-enabled social innovation could be. In economics the substitution effect is one component of the effect of a change in the price of a good upon the amount of that good demanded by a consumer (the other being the income effect).⁵⁹ In this research, however, we may want to consider how the different elements of social innovation (and in particular open processes of co-creation, collaborative networks, and the public value creation) have effects on social change and how they improve the well-being of disadvantaged groups by addressing their needs in a new and/or innovative manner.

In the same vein, and with an even more ambitious goal, we could also consider applying principles of **welfare economics**⁶⁰ which focuses on the optimal allocation of resources and goods and how this affects social welfare. Welfare economics analyses the total good or welfare that is achieved and how it is distributed.⁶¹ This relates to the study of income distribution and how it affects the common good. Translating it into the IESI conceptual framework, we could consider exploring how ICT-enabled social innovation initiatives contribute to increasing social well-being and quality of life for disadvantaged groups in society, and, in turn, to increasing wealth for society as a whole.

⁵⁸ The theory of consumer choice is the branch of microeconomics that relates preferences to consumption expenditures and to consumer demand curves. It analyses how consumers maximise the desirability of their consumption as measured by their preferences subject to limitations on their expenditures, by maximising utility subject to a budget constraint.

⁵⁹ When a good's price decreases, if hypothetically the same consumption bundle were to be retained, income would be freed up which could be spent on a combination of more of each of the goods. Thus the new total consumption bundle chosen, compared to the old one, reflects both the effect of the changed relative prices of the two goods *and* the effect of the freed-up income. The effect of the relative price change is called the **substitution effect**, while the effect due to income having been freed up is called the **income effect**.

⁶⁰ **Welfare economics** is a branch of economics that uses microeconomic techniques to evaluate well-being (welfare) at the aggregate (economy-wide) level. A typical methodology begins with the derivation (or assumption) of a social welfare function, which can then be used to rank economically feasible allocations of resources in terms of the social welfare they entail. Such functions typically include measures of economic efficiency and equity, though more recent attempts to quantify social welfare have included a broader range of measures including economic freedom (as in the capability approach). *Deardorff, Alan V. (2014), "Welfare economics", Deardorff's Glossary of International Economics.*

⁶¹ The field of welfare economics is associated with two fundamental theorems. The first states that given certain assumptions, competitive markets produce (Pareto) efficient outcomes; it captures the logic of Adam Smith's invisible hand. The second states that given further restrictions, any Pareto efficient outcome can be supported as a competitive market equilibrium. Because of welfare economics' close ties to social choice theory, Arrow's impossibility theorem is sometimes listed as a third fundamental theorem.

5. The IESI Knowledge Map 2015

This chapter provides an overview of the results of the analysis of the initiatives collected as part of the IESI mapping exercise in 2014 and 2015. The analysis presents the IESI Knowledge Map 2015, which aims to provide a better understanding of the main characteristics and patterns of the initiatives identified, according to the IESI conceptual framework. Reference is also made to the different welfare systems and social services delivery models in various EU countries in order to contextualise the potential role played by ICT-enabled social innovation in promoting social investment through integrated approaches to social services delivery.

This chapter analyses the IESI repository and 'knowledge map' of ICT-enabled social innovation initiatives which provide evidence of policy-relevant outcomes, collected in 2014 and 2015. After a quick overview of the mapped sample (§5.1), the 210 documented initiatives are contextualised according to the different typologies of welfare systems as defined in §4.2 (§5.2). The chapter concludes with an analysis of the IESI Knowledge Map 2015, assessing the sample of initiatives mapped in 2014 and 2015 in relation to the IESI conceptual and analytical framework. It also discusses some of the additional dimensions suggested in §4.3 to further enrich our understanding. Special attention is paid to how evidence of impact is measured, as this is one of the main added values of the IESI research (§5.3).⁶²

5.1 Analysis of the IESI mapped database: a structured dynamic repository

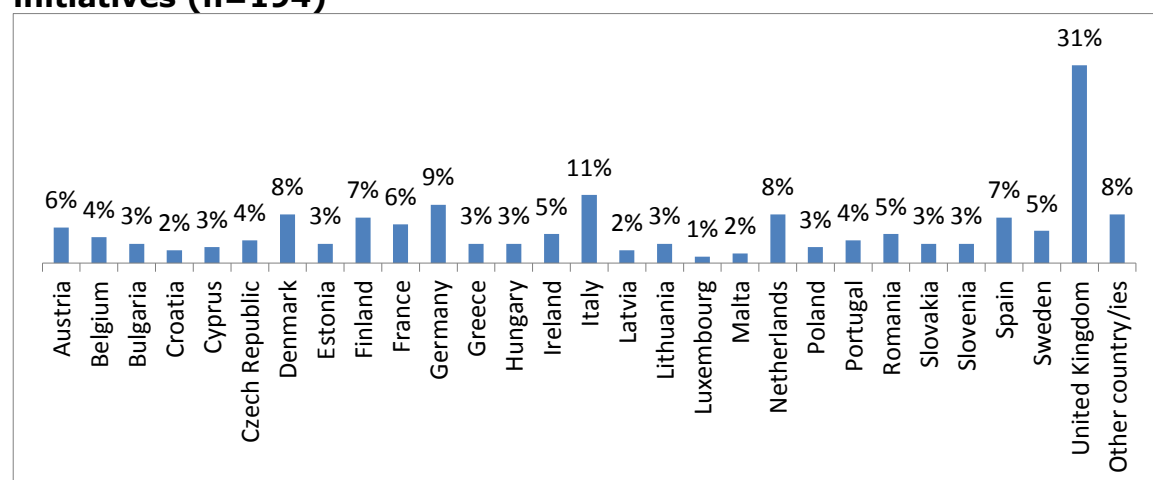
The IESI mapping clearly focuses on the 28 EU Member States. Thus, as shown in **Figure 13, 194 of the 210 initiatives analysed have been implemented by, or involve, at least one EU Member State.** However, many of the initiatives operate across country boundaries, providing services in more than one country. 31 initiatives from the sample operate outside the EU28, and half of these (n=15) are present in at least one Member State. The remaining 16 initiatives operate – or have been operating – exclusively outside the EU28 territory.

If we look at the initiatives where at least one Member State is taking part, **the UK is clearly the front-runner. It is involved in 61 initiatives that provide evidence of the policy outcomes of ICT-enabled social innovation.** It accounts for 31.4% of the 194 initiatives where at least one EU Member State was involved.

If we focus further on the EU only, **Figure 14** shows the distribution of the initiatives mapped across the EU28. Here, we see that the total number of initiatives in the EU (n=194) is actually represented as 296, as initiatives are implemented either in a single country or across several EU countries. This means that **each of the 194 initiatives actually covers an average of 1.5 countries within the EU28.** In this respect it is important to underline that in most of the mapped initiatives (31%) one particular country is involved – the UK. Even though – as we will see later in §5.2 – the distribution overall between welfare systems is well balanced, this dominance by one country can have a skewing effect. This is because country-specific conditions such as ICT literacy levels or national regulations and taxation rules have an impact on other types of analysis (e.g. comparing inter-governmental and inter-sectoral governance of partnerships, as we will do in §5.3).

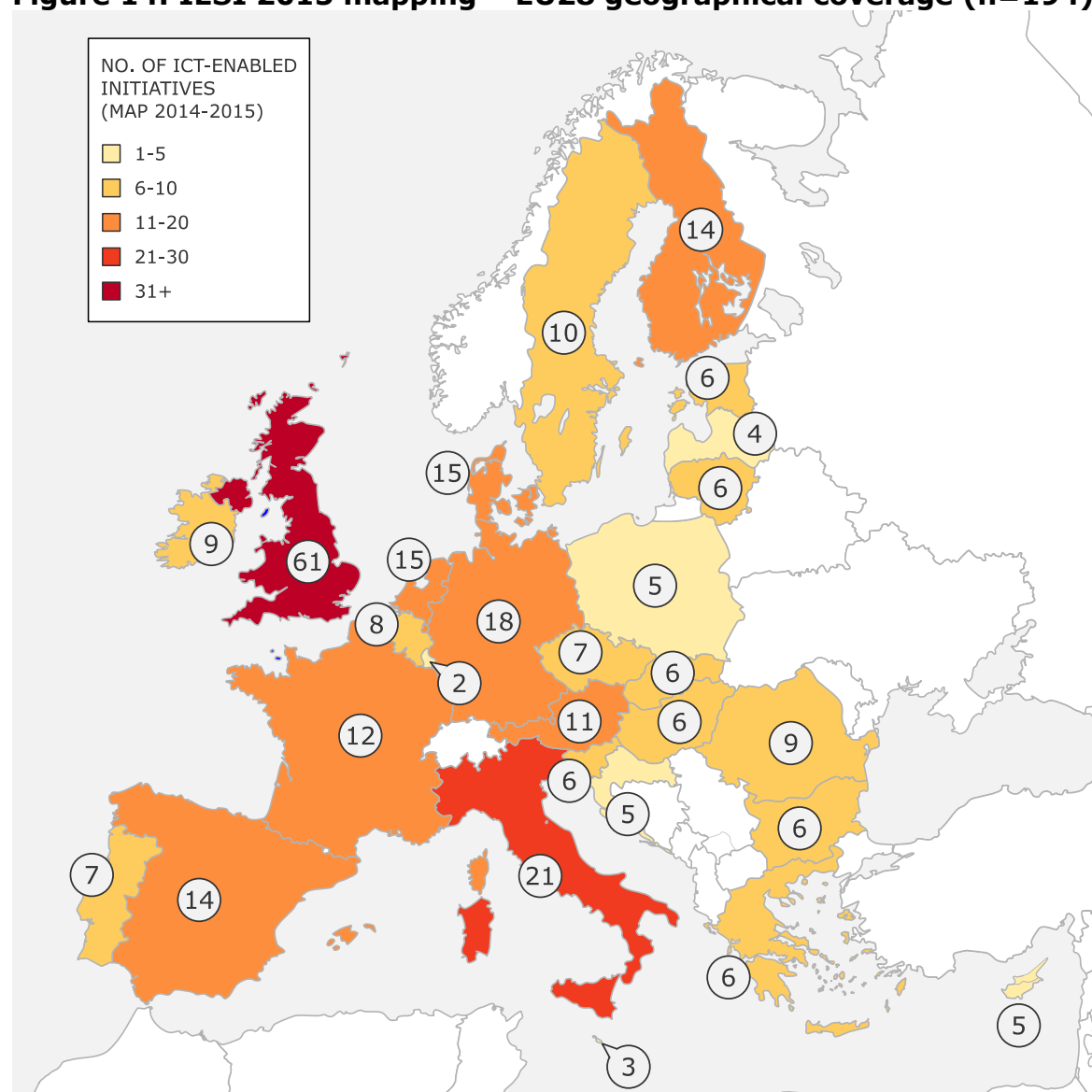
⁶² It should be noted that there are many mapping exercises and collection of practices in the domain of social innovation in general. A recent mapping of the mapping exercises in the area counted at least 17 EU-funded research gathering data and examples. However, in many cases these exercises do not give the same emphasis on the 'evidence base' as the IESI research does, given the specific policy-orientation of the project, intended to contribute directly to EU policy design and to support Member States in the implementation of their SIP-related policies.

Figure 13: Initiatives operating in at least one EU Member State, % of initiatives (n=194)



Source: own elaboration.

Figure 14: IESI 2015 mapping – EU28 geographical coverage (n=194)



Source: own elaboration

The 2015 mapping exercise allowed us to address the gaps identified in the 2014 data-set in terms of geographical coverage, particularly as regards Eastern Countries and some Southern and Continental Countries which were underrepresented in the 2014 repository. As already noted, **the UK's leading role has been largely confirmed, due both to the high levels of ICT-enabled social innovation deployment in the country and the availability and quality of evidence.**⁶³ This is also for the case for Ireland, as it has 9 mapped initiatives despite its limited size.

However, looking at Figure 14 above, which maps the distribution of the IESI mapped initiatives, it appears that **the phenomenon of ICT-enabled social innovation is present across the entire EU. It seems to be establishing itself most in major EU countries in south, continental and north Europe**, such as Italy, which has 21 initiatives, Germany (18), Denmark and the Netherlands (both with 15 initiatives), Finland and Spain (14 each), France (12), and Austria and Sweden (11 and 10 respectively). Belgium, Portugal and Greece also have relatively large numbers of cases (8, 7 and 6 initiatives respectively) despite their small size and population. The same applies to the Mediterranean islands of Cyprus and Malta which have 5 and 3 initiatives respectively, while Luxembourg has only 2. As a consequence of the limitations already encountered in 2014 and despite efforts to fill the gap, as mentioned in §3.3 with regard to the inventory 2015, **the search for initiatives in central and eastern Europe has been hampered by several factors which are probably due to the absence – at least until now – of a significant presence of initiatives that could be classified in the IESI mapping.** Only Romania (9) and the Czech Republic (7) have noticeable numbers of initiatives, while in a big country like Poland only 5 initiatives have been found. Smaller countries such as Bulgaria, Hungary, Slovenia, Slovakia have a total of 6 initiatives and Croatia has 5. It seems that the current turmoil due to the refugee crisis is 'shaking up' the local communities, and both proactive civic engagement and social inclusion efforts⁶⁴, and also more conservative approaches are emerging.

The **Baltic countries** seem to be following a similar path. Despite the high level of ICT penetration in Estonia and Lithuania only 6 initiatives have been gathered for the mapping, while Latvia has 4.⁶⁵ Although the phenomenon in this group of countries appears to be clearly underdeveloped with respect to the rest of the EU, this will be

⁶³ As a reminder, in addition to the policy-relevance of the initiatives and the role of ICT-enabled innovation promoting social investment (which allow initiatives to be included in the IESI inventory if both criteria are satisfied), the selection criterion for inclusion in the IESI mapped sample is the existence of evidence of policy-relevant outcomes, produced by a systematic research methodology. This proved to be a challenge as the culture and practice of conducting systematic monitoring and assessment and even more scientific impact evaluation are limited in most countries, especially in a field such as the one under investigation. Moreover, although the researchers involved in the mapping covered many EU-languages either directly or indirectly (i.e. through experts and stakeholders) still, to a minor extent some imbalance favouring the UK could perhaps be attributed to the fact that the most used language for the research was English.

⁶⁴ An interesting example included in the IESI inventory is **InfoAid**, an app created in 2015 by Migration Aid, a community initiative bringing together Hungarian citizens and organisations and providing coordination to volunteers who are providing incoming asylum seekers with basic goods (and particularly food, clothes and medicines) and information on the opportunities ahead. InfoAid allows asylum seekers to rapidly access reliable and updated information on various topics such as what sort of care they are entitled for; where to look for medical help; etc. The app was necessary since the inconsistent behaviour of the authorities and the growing amount of rumours and contradictory information was leading to a situation of distrust and missed cooperation between the immigrants and local authorities. However, since the initiative is very recent and it was not possible to evaluate its impact the initiative has not been included in the IESI 2015 mapping. More information is available at: <http://www.migrationaid.net/english>

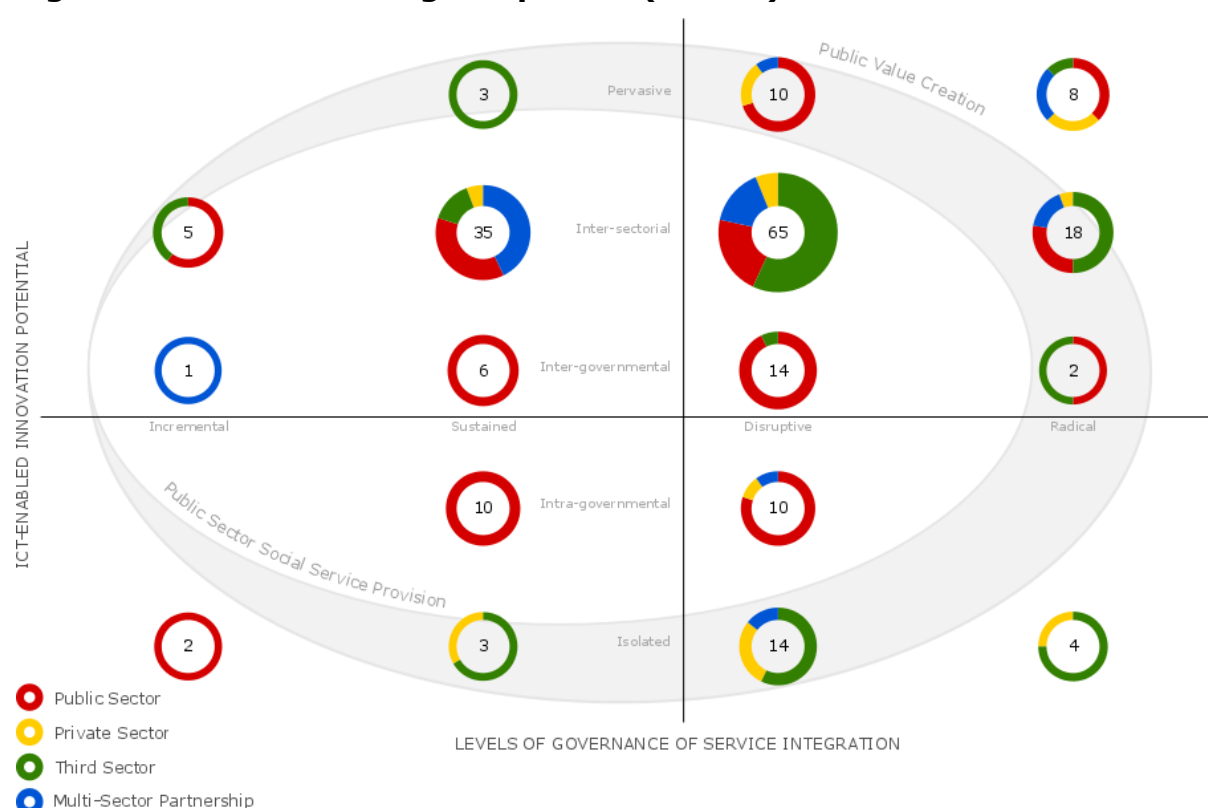
⁶⁵ These numbers should be however contrasted with the small size of the countries

further explored in the next round of mapping in order to have a more accurate picture and better understand the drivers and barriers.⁶⁶

We now focus on the main dimensions of the IESI conceptual framework. **Figure 15** below presents the **IESI 'Knowledge Map'** (Misuraca et al., 2015b)⁶⁷, which includes both initiatives mapped in 2014 (n=70) and 2015 (n=140), following the dynamic approach of the research, which is 'constructing the sample over time'.

The figure shows how the initiatives are positioned with respect to two of the main dimensions of the IESI conceptual framework: **ICT-enabled innovation potential (X axis)** and **levels of governance of service integration (Y axis)**. Different colours indicate the sector of the organisation(s) 'leading or driving' the initiative. This element will however require more detailed analysis because the initiatives are generally characterised by the presence of several partners from different sectors, with different roles in the design or delivery of services (for more details on this see §5.2 and 5.3).

Figure 15: IESI Knowledge Map 2015 (n=210)



Source: own elaboration.

⁶⁶ It is worth also noticing that some of the non-EU countries represented in the sample got involved in multi-national collaborations, often started as EU-funded projects. In other cases, such as the **Cisco Network Academy**, **Samasource** or the **Social Innovation Relay**, initiatives were conceived from the beginning as global initiatives, or replicated abroad after successful implementation: for instance the **Buurtzorg** community care model, created in the Netherlands, is now used in the USA, Sweden and Japan, while the Danish social enterprise **Specialisterne** has branches in other 11 countries across the world.

⁶⁷ For the bare definitions of the conceptual and analytical IESI framework – of which a couple are included in the Knowledge Map – please refer to the List of definitions at the end of this report. Nevertheless, for the full elaboration of the conceptual and analytical frameworks please refer to the referenced report (Misuraca et al, 2015b).

As can be observed from the figure, **most of the initiatives (65) have a disruptive ICT-enabled innovation potential and are implemented at an inter-sectoral level of governance of service integration.** The majority of these initiatives are led by the third sector, followed by the public sector and multi-sector partnerships. Private sector-driven initiatives are a minority in this group.⁶⁸ The second largest group (35 initiatives) is also characterised by an inter-sectoral level of governance of service integration, but in conjunction with sustained ICT-enabled innovation potential. These initiatives are mainly driven by multi-sector partnerships or public sector organisations, and only a small number of initiatives are led by the third sector and very few by the private sector.

A third significant group, with 18 initiatives, has radical ICT-enabled innovation potential and is also positioned in the inter-sectoral level of governance of service integration. As with the first group, these initiatives are mainly led by the third sector, followed by the public sector; multi-sector partnerships and private sector-driven initiatives.

This suggests that **it is at the inter-sectoral level of governance of service integration that 'things happen'.** Moreover, while third sector organisations appear to be leading when it comes to disruptive and radical ICT-enabled social innovation, the public sector and multi-sector partnerships are key for achieving sustained/organisational ICT-enabled change.

Another two very diverse and particularly interesting groups follow, each with 14 initiatives. The initiatives in both groups have disruptive ICT-enabled innovation potential. In terms of governance of service integration, however, the first is positioned at the crossroads with inter-governmental level and the second emerges in the isolated category. The first group is mainly public sector-driven, while the second has no public sector organisations in leading positions and is driven instead by the third sector or multi-sector partnerships, and to a limited extent the private sector.

These two groups are of particular interest in terms of knowledge exchange and learning. The first group seems to contain initiatives in which public sector organisations manage to generate significant and disruptive change through inter-governmental collaboration and service integration. It may be easier to replicate or transfer these initiatives as they have mainly emerged within the 'traditional' public sector. They may reflect important innovations in vertical governance, through for instance the better alignment of policies and service delivery channels among national, regional or local levels of government. The second group may represent promising initiatives in terms of innovation potential, which have not yet been integrated into the public provision of social services as they have originated outside traditional mechanisms or governance schemes. However, in many cases, these innovations may also be easily embedded in public service provision, or used as alternative delivery channels, representing an opportunity to enhance service outreach.

Another three groups, which together also have substantial weight (they account for 10 initiatives each), include a considerable number of public sector-driven initiatives. They are positioned at different intersections of the IESI Knowledge map, ranging from intra-governmental to pervasive levels of governance of service integration. In particular, two groups situated at the intra-governmental have either sustained or disruptive ICT-enabled social innovation potential. These initiatives are clearly examples of public sector innovation, and thus would provide important lessons for understanding how different countries are modernising their public service delivery and, in turn, their social protection systems. The last group, which is located at the pervasive level of governance of service integration and has disruptive ICT-enabled social innovation potential, includes initiatives that are (or are being) implemented in a mainstream manner. Thus, they

⁶⁸ This may be due to the fact that ICT-enabled social innovation initiatives implemented by private sector organisations are seldom integrated into mainstream public service delivery. Moreover, it proved to be difficult to gather results of evaluation on outcomes from private service providers, which is the key criterion for inclusion in the IESI mapping.

seem to be producing not only changes in terms of their internal organisational systems, but they also have systemic effects on the context in which they operate. The same observation applies to another group (8 initiatives) that deserves a special mention as it merges radical ICT-enabled social innovation potential with a pervasive level of governance of service integration. Interestingly enough, this presents a certain balance among sectors: i.e. public, private and multi-sector partnerships represented approximately evenly, and with a minor, but still significant, role for third sector organisations. This shows that radical innovations that can be turned into pervasive implementation may actually originate from various backgrounds and *modus operandi*.

Finally, other small groups are also identifiable in other positions on the knowledge map, mainly at the borders of the traditional public service provision 'arena'. These have between 1 and 5 initiatives. Some of them may be considered outliers, while others are perhaps simply composed of initiatives that have yet to find their 'place' within mainstream social service delivery systems. This would probably apply to initiatives that are mainly driven by third sector organisations. However, few initiatives (2) that developed either within or outside the public system have radical potential in terms of ICT-enabled social innovation, or happen at the inter-governmental level of governance of service integration. Other initiatives, mainly from the public, third or even the private sector (though only 1 in this last case) have instead incremental potential in terms of ICT-enabled social innovation and are positioned at different levels of governance of service integration. Clearly a more detailed analysis is required and this will be partly done in the rest of this chapter and Chapter 6, where three sub-samples of the IESI mapped database will be analysed in more depth. These thematic analyses will be followed in the next phase of the IESI research by in-depth case studies. This will allow us to better understand the evolutionary development of the phenomenon under investigation, and this analysis is going to take place in the final phase of the research on a consolidated database.⁶⁹

In this connection, it is important to underline that, **building on the results of the first round of mapping conducted in 2014 as exploratory exercise, the mapping exercise in 2015 aimed to gather initiatives that have a more 'systemic effect'**. In line with the aspirations of the IESI research to provide insights for the efforts to modernise social protection systems, the aim was to find initiatives that contribute or could contribute to providing useful examples of social policy reforms.⁷⁰ However, this proved to be extremely difficult. Although the share of systemic initiatives is sizeable and 'Systems' count for 17% of the entire mapped sample, the IESI repository of ICT-enabled social innovation initiatives at present are mainly concerned with 'Services' (75%) (n=210) (see Figure 16).

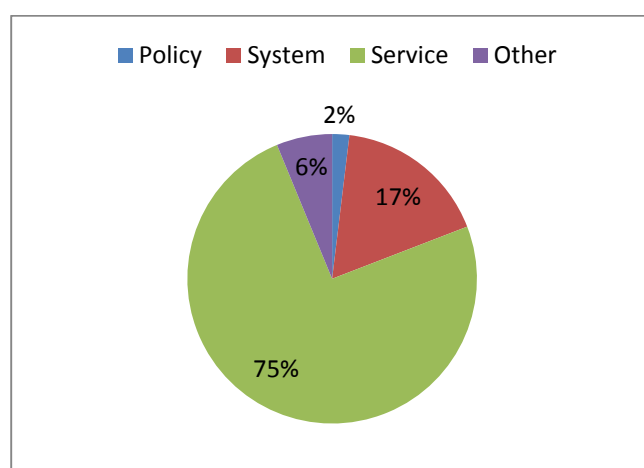
There are only 4 initiatives in the entire sample (2%) that are concerned with 'Policy', namely: the Danish Strategy for Digital Welfare; the Getting it Right for Every Child programme in the UK; the Network of Telecentres in Cantal, France; and the Telecare Development Programme, in Scotland, UK. This demonstrates that the phenomenon of ICT-enabled social innovation has mainly developed at the crossroads between sectors. Although it does not seem to flourish unless the public sector plays a catalysing role, neither does it seem to be part of mainstream policy interventions in the field as yet.⁷¹

⁶⁹ It is expected that in 2016 the IESI research will collect an additional set of initiatives so to reach a total inventory of 600 initiatives and a mapping sample to be analysed of 300 relevant initiatives. This will be complemented by a number of in-depth case studies and the analysis of scenarios of use as part of the other Work packages of the IESI Project.

⁷⁰ In this respect, the IESI research classifies the type of initiatives in: Policy; System and Service.

⁷¹ It should be noticed that due to differences in the data gathering approach followed in the mapping in 2014 and 2015, this specific issue has not been addressed in a consistent manner. This is demonstrated by the fact that in 2014 over 8% of the sample was categorised as 'Other', while this is now limited to 6%. However, all data included in the IESI mapping, will be

Figure 16: IESI 2015 mapping – Type of initiatives (n=210)



Source: own elaboration.

If we focus our attention on the type 'Systems', these mainly consist of large-scale initiatives with high levels of integration of services. They aim to modernise EU social protection systems, making them more efficient, person-centred and integrated. Typical examples are national one-stop-shops for services, where PSSGI are accessible online, and employment services' websites which match offers of jobs with demand and help job-seekers through training and counselling. Some examples of systems at national level are presented in Box 1, while examples at local/regional level are in Box 2).

Box 1 - Examples of systems at national level: Gov.mt and Pôle Emploi

Gov.mt is an e-government portal launched in 2002 by the Maltese Government as the official entry point for citizens in Malta to the online services of all government bodies. On the Gov.mt portal, which was further improved in 2012, users are provided with an A-Z list of all government websites hosted on the platform, as well as an A-Z list of all available e-services: The portal also divides the eGovernment services into different clusters and life events, a technique used to bundle government services according to the needs of specific citizen groups/life events. Within these links (e.g. pregnancy and birth, looking for a job, healthy living), citizens will find government services structured around their needs, regardless of the Government Department responsible for them. This provides a more accessible, user-friendly, and inclusive structure for citizens most in need of social services, including people with disabilities, unemployed people, people living in social housing, people claiming family/child benefits, and older people claiming state pensions. In addition, Gov.mt also allows citizens, businesses and civil society organisations to provide government with feedback on all the on-going legislative and non-legislative activities through a consultation page. The feedback received is published and analysed, and a detailed report of the outcome is published and made available to the public. Furthermore, citizens can communicate directly with Central Government, Local Councils and Public Entities through servizz.gov.mt, to make complaints, report excessive bureaucracy, make suggestions or ask for information. The portal has achieved remarkable results in terms of widening access and take-up of services, improving their quality and cost-efficiency, and feedback from users and external evaluations have been very positive so far.

reviewed accurately in the next phase of the research in view of a consolidated analysis of the three rounds of mapping, 2014, 2015 and 2016.

Pôle Emploi: As part of its strategic plan, Pôle Emploi (PE) launched in 2014 a targeted '100% Web' initiative, to provide free e-services for jobseekers considered to be closest to the labour market in France. As part of the current digitalisation work, PE has developed free online services (matching of CVs and job offers, e-counselling, e-training) that can be accessed by any jobseeker or enterprise on the 'Emploi Store' (Job Store in English) platform launched in October 2014. In 2015, the 'Emploi Store' digital platform launched Massive Open Online Courses (MOOCs) specifically targeted at job-seekers. 4 training courses have been made available so far: (i) 'Defining your professional project' helps job-seekers to understand in which sector they should look for a job based on their skills, aspirations, and the situation of the job market; (ii) 'How to find and select job offers' helps job-seekers to navigate through job offers efficiently; (iii) 'CV and motivation letter' helps candidates to write effective CVs and motivation letters; and (iv) 'Successful interviews and follow-up' prepares job-seekers for phone and face-to-face interviews. The 4 courses are free and open to both employed and unemployed people. They last around 4 weeks and can be followed online 24 hours a day, 7 days a week. The PE's 100% Web initiative improves the access, take up, and quality of online services for jobseekers and employers in France. There were 40 million website visits (500 million page views) in 2014 at 69% user satisfaction rating, plus 14,000 completed Massive Open Online courses (MOOC) in 2015. Outputs from PE's premium e-services for jobseekers included 700 video interviews and 200 connections to e-learning MOOCs among the 1,400 jobseekers who signed up in 2013.

Box 2 - Examples of systems at local and regional level: Healthy Villages and SAM:BO

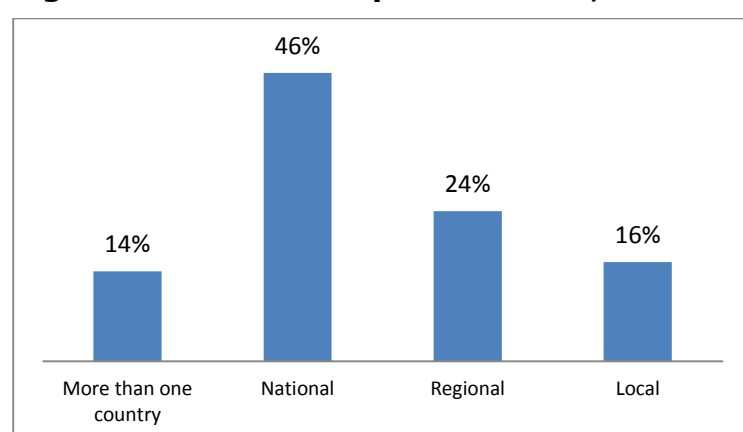
Healthy Villages is a city-wide project in Birmingham, UK, which aims to improve health and wellbeing, and prevent health issues arising, with a special focus on the elderly population, children and citizens from disadvantaged background. The programme aims to find successful examples of 'disruptive innovation' locally, nationally and internationally and scale them up across Birmingham, combining dynamic partnership working, community engagement, technology and innovation. The current portfolio of projects focuses on: (i) Wellbeing Projects; ParkLives project, providing free physical activity programmes in local parks; and Intelligent Health that focuses on walking and healthy work breaks; (ii) Integrated Care that seeks to join-up health and social care services for 'Complete Care', with a strong prevention component; (iii) Challenge Prizes that support the development of innovative technologies in health and social care, using a '4i' method - infrastructure, insight, innovation, integration. The initiative has achieved very positive outcomes both in terms of civic engagement (28% increase in community group activity and 33% of target beneficiaries who volunteered to get involved in delivering locally), access and take-up of services (16-18% reduced failure demand in primary and acute services) and increased service-user well-being (22% improvement in self-reported wellbeing and 85% of users satisfied with their service experience). Birmingham Healthy Villages presents radical levels of ICT innovation, as the use of ICT is embedded in all the activities brought forward by the partnership. Funding is provided through Challenge Prizes for the development of new technologies which can help address the needs of elderly people or improve existing services. Social media and the web are used to map services available in each locality where the initiative is implemented in order to identify any gaps or overlaps. Assistive technology is provided to the 400 elderly people taking part in the "Complete Care" programme developed under the initiative. In addition, access to a shared health and social e-record facilitates communication and coordination between the different stakeholders involved in the delivery of the services. A triangulation method is used to create more effective outcomes for service users, broadening the pool of multi-agency resources which can act as ICT-enabled Navigators and help provide more connected services. Public actors (Police, health providers, Criminal Justice Departments, housing associations, and representatives of academia and the education and learning sectors),

and civil society organisations are all involved in this triangulation process. The initiative is creating public value by dramatically changing the relationship between all stakeholders involved. It is moving towards a care model where not only are social and health services integrated, but also housing, education, innovation, entrepreneurship and community activism are helping to put end-users at the centre of the design, delivery and evaluation of services, whilst helping public services to become hubs of health and social innovation.

SAM:BO is a public sector-led initiative which benefits around 1.2 million patients in Southern Denmark by ensuring seamless transfer from hospital to community care. It enhances quality of care and wellbeing and uses a shared case management system to facilitate integration of health and social care. It is a partnership between four hospitals, 22 municipalities and all GPs in the region. SAM:BO presents disruptive levels of ICT innovation: as well as an IT system used by around 10,000 practitioners which allows case management, and back office and front-line integration all across the region, telecare and telemedicine facilities are also provided to those patients who need constant monitoring and health assistance at home. SAM:BO is socially innovative because, as well as facilitating cooperation and co-delivery of services between different public and private providers, it also engages patients and informal carers in the whole rehabilitation planning process. This leads to better communication, high levels of trust in the public administration and a reallocation of public value. In terms of integration, all the municipalities, public hospitals and the regional authority of the Region of Southern Denmark are involved in the partnership, which, at delivery level, also includes many service providers from the private and third sector. At policy level, SAM:BO is not only part of the national e-government and health strategy, but also of the regional smart specialization strategy, which includes activities at the crossroad between e-health, AHA and social innovation domains. Integration occurs at funding, administrative, organisational and delivery levels, and is enabled by a shared information and case management system.

As regards scale of implementation, most of the initiatives have been implemented in a single country, 46% on a national scale and 40% of all the initiatives are implemented at a sub-national level: 24% on a regional, while 16% on a local level. Only around 14% of the sample implies multinational collaborations.

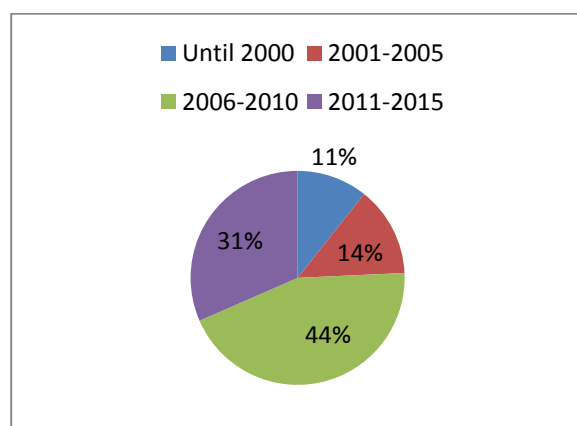
Figure 17: Scale of implementation, % of initiatives (n=210)



Source: own elaboration

Most of the initiatives were implemented after 2006, and 91% were still operating at the time of the data collection (either in 2014 or 2015).

Figure 18: Period of implementation, % of initiatives (n=210)



Source: own elaboration

In the 2015 mapping, special emphasis was put on identifying possible initiatives addressing the three areas of the **Personal Social Services General Interest (PSSGI)** which were not included during the first phase of data collection in 2014, namely: 1) social housing; 2) civic engagement and 3) (disease-) prevention, health promotion and rehabilitation of active and healthy ageing and long term care. However, due to some re-classification of the PSSGI categories for 2015, the overall relevance – i.e. the multitude of service areas – can only be reported for 2015⁷².

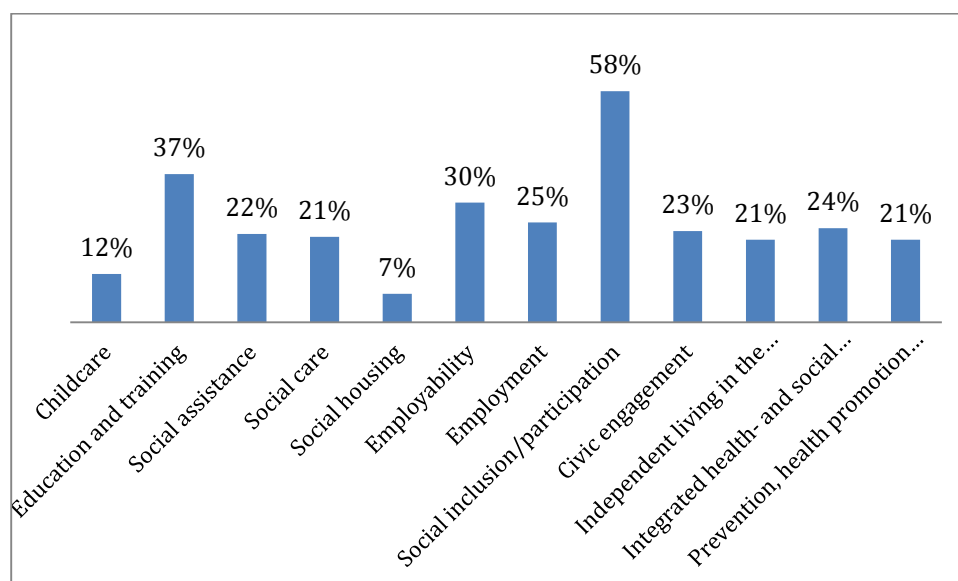
Another important difference with respect to the 2014 mapping refers to the greater attention paid to the integration aspects of the initiatives. In 2014, specific data to capture the multiple PSSGI addressed by an initiative was not collected, and this aspect was treated only qualitatively (see Chapter 5 of the JRC Science & Policy Report, Misuraca et al., 2015). **In the subsample of the 140 initiatives documented in 2015, however, every initiative addresses on average 3 social areas of intervention (i.e. PSSGI).** This often indicates an integrated approach in the design or delivery of the service, which aims to serve more elements of the users' frequently complex social/welfare situations.

However, looking at **Figure 19**, it is apparent that **ICT-enabled social innovation is more wide-spread in certain PSSGI areas than in others. For example, over half the initiatives (54%) mapped in 2015 carry out activities in this field.** This is mainly due to the fact that many initiatives across all PSSGI have a very strong 'social component' and target disadvantaged groups, in line with the IESI project focus.

Around 41% of the initiatives mapped in 2015 fall into the category 'education and training'. This is another area of activity where ICT-enabled social innovation plays an important role. It enables the provision of customised services to hard-to-reach groups of learners, particularly those with deprived physical or mental capacity, the long-term unemployed and to people leaving in rural and deprived areas. **If we look at the primary PSSGI area (we have this data for the joint 2014-2015 database), only 15% of the initiatives address education and training as a primary goal.** The gap is mainly due to the fact that many initiatives in this field have a strong social inclusion or employability component. Primarily, they aim to support enhanced social inclusion and employability by providing education and training possibilities. (See **Boxes 3 and 4** for examples in these domains).

⁷² As already mentioned, the full database will be updated and consolidated at the end of the IESI project.

Figure 19: Areas of PSSGI addressed in the initiatives mapped in 2015 (n=140)



Source: own elaboration.

Box 3 - Examples of ICT-enabled social innovation initiatives in Social Inclusion

Flash Giovani (Flash Young) is a youth-focused platform launched by a network of local authorities under the leadership of Bologna's Municipality in Italy. It offers an integrated network of portals managed by - and aimed at - young people aged 15 to 35 living in the Bologna area. The content for the Flashgiovani.it network is created by an editorial team consisting predominantly of young people, supported by a group of specialists ranging from media production experts to counsellors. The scope of the initiative is to engage young people in civic life by providing information on and access to available services and opportunities, including on-line and off-line psychological assistance and health assistance. It focuses particularly on creativity, with the creation of www.flashvideo.it, www.flashmusica.it, www.flashfumetto.it.

The initiative has been very successful in widening young people's awareness and take up of available services and in promoting engagement with the municipality and community as a whole.

Flash Young presents disruptive levels of ICT innovation, as the web-platform is used not only to provide information, but also services such as job or health counselling. Levels of social innovation are very high. Young people are involved in the design and delivery of contents, and graduates from local universities, working as interns within the local public services targeting young people, are contributing to innovation in public services from the inside. They are radically changing the way services are designed and delivered, and creating trust and public value. For this reason, the initiative falls into the "pervasive" category when it comes to levels of governance of service integrations, and moreover Flash Young is integrated at the organisational, administrative and delivery levels.

Pragulic is a social enterprise which addresses homeless people's social exclusion at the same time as fighting prejudices and negative bias towards them. The enterprise, which started in 2012, thanks to winning the Social Impact Award, employs homeless people as touristic guides in Prague. They enable tourists and local residents to see the city from the particular point of view of homeless people. Guides are selected with the help of local shelter houses and NPOs. They undergo a 4-week training course where they are helped to design a personal tour based on their experience. A series of new projects has

started thanks to a mix of grant funding and impact investing secured in 2014. The initiative has been very successful so far, and has created stable employment for the two enterprise founders for their 8 former homeless employees. In addition, the initiative is creating awareness, understanding and empathy towards the situation of homeless people in Prague and beyond. Pragulic demonstrates sustained levels of IT innovation: the enterprise website is a key element of its business strategy, as it makes it possible to attract local and foreign tourists, by marketing and selling on-line tour-packages which address various audiences. Most importantly, it is a strategic part of the enterprise impact strategy, it hosts a constructive debate around homelessness and it builds interest and awareness across the wider community.

Box 4 - Examples of ICT-enabled social innovation initiatives in Education and Training

Your Teacher (O Teu Mestre) is a digital platform which facilitates learning and the creation of a community for students aged 5-12 in Portugal. It offers tutoring and on-line courses, and facilitates the interaction between students and between students and teachers. The initiative, piloted in the Portuguese school EB 2/3 Sto to provide students with support in the most difficult subjects, was then extended to meet the needs of children who couldn't attend school for long periods of time due to their health conditions. The platform not only helped hospitalised children keep up with their peers through e-learning and tutoring, but also fought social isolation by providing them with a platform where they could communicate and exchange with fellow students. Over time, cuts in public spending led the social enterprise to look for alternative sources of funding. Given the rising numbers of children in need of private lessons outside school hours, a decision was made to open the platform to any student aged 5-12 after payment of a fee. This arrangement allowed the platform to become economically sustainable, and to keep offering free-of-charge services to hospitalised children. The platform was evaluated in 2009 and results were very positive concerning the perceived usefulness of the tool to improve understanding of subjects (and particularly maths) and, consequently, school attainment levels.

eKool is an online data management, information, and communication platform for the education sector in Estonia. Through a combination of their web-based platform and smartphone applications, the eSchool initiative provides information/communication services for schools, teachers, parents, pupils, and local/national government in Estonia, including: (i) teachers' electronic record of student attendance/absence in school; (ii) instant messages sent to parents if their child is absent from school; (iii) parent to teacher messaging function in the case of absence; (iv) e-record of students' grades and progress for teachers and parents; (v) e-diary for teachers, students, and parents to keep track of all homework assignments; (vi) online reporting functions for teachers to create reports for school management, local government, and other relevant organisations; (vii) new online communication channel between teachers and parents to flag any behavioural/social/progress issues (e.g. bullying, behind on work, misbehaving in class) as they occur, rather than waiting for conventional parent/teacher meetings. Parents only get access to their own child's progress/attendance data and teachers can only access their own class data to maintain the privacy of all other students. The eSchool web-based platform is provided free of charge for pupils, parents, and teachers. It is funded by revenue from selected advertisements displayed in the eSchool application, and users can subscribe to additional paid convenience services such as messaging and weekly reports. The eSchool platform is the most used e-service in Estonia, and is used on a regular basis by 28-30% of the total population and 85% of schools in Estonia covering 95% of all Estonian students, with 294,049 active users and 1 million student grades entered daily. The main benefits achieved by the eSchool initiative include a 30% reduction in student absences, 80% reduction in school dropouts, 30 minutes a day saved by teachers, and rise in Estonian students' results to 2nd-4th best in Europe.

A total of 55% of the initiatives mapped in 2015 address the areas of employability (30%) and employment (25%). However, as we have seen for education and training, if we look at the primary PSSGI area addressed, their combined share falls back to 15%. Initiatives in our sample that address this area are mainly devoted to either empowering the members of specific disadvantaged groups and making them more employable, or to services that address the entire population of unemployed – workers. In the latter case, the initiatives are often more systemic and public sector-driven, and involve the innovative use of ICTs to reorganise service delivery for service providers, and also beneficiaries through interactive ICT-based solutions. Interestingly, some of the initiatives in this group emerged as a result of the reforms which occurred in the Public Employment Services (PES) in several EU Member States. These reforms aimed to address current unemployment challenges and the need to re-skill workers to prepare them for different jobs. They also aimed to improve the matching of job offer and demand in a continuously changing labour market, where there is growing technological change and the emergence of new jobs for which digital skills and the knowledge of use of ICTs is crucial. Some examples of the initiatives in these domains are reported in Boxes 5 and 6.

Box 5 - Examples of ICT-enabled social innovation initiatives in Employability

Gerapraktika.lt is a web portal launched in 2010 as a result of a project led by the Lithuanian Employers' Confederation and funded by the European Social Fund (ESF). The project brought together universities, companies and students to design an effective scheme for internships. After analysing the needs of the different groups involved and various models used internationally, a web portal was developed to facilitate the match between employers and candidates. Automatised processes allow the constant monitoring of users, matching offers with demand for internships, and also the creation of new profiles and new job-descriptions based on employers' needs. The platform has been extremely successful in streamlining the process and improving the quality of internships, as well as in increasing the employability of young people and in facilitating the recruitment process for employers. An automatised and compulsory evaluation process allows employers and universities to visualise not only interns' academic curricula, but also their performance and the practical skills acquired during the internship, whilst the quality of the internships from the point of view of students is immediately assessed and made visible on the platform. Every year, the most 'intern-friendly' companies are given a special award, which has contributed to further raising the interest of companies in the initiative. The platform, which was created with a regional scope and a focus on Economics Faculties and Business Schools, is now used by students from all across the world from any faculty.

Flexipraca is a 2012 Slovak private sector-led initiative that provides access to flexible work solutions (e.g. part-time, teleworking, flexitime, shared jobs, compressed work week) to people who have difficulties in keeping full-time employment engagements (e.g. stay-at-home mothers, students, retired people, disabled people, etc.,). The Flexipraca initiative was developed by two social innovators and stay-at-home mothers using personal funding. It also received a Google Ad Grant Award for its social impact. Google Ad Grants empower non-profit organisations, through US\$10,000 per month in in-kind advertising, to promote their mission. Flexipraca has a social aim in that it addresses an unmet need in Slovak society, i.e. the scarcity of job opportunities for stay-at-home mothers or mothers who want to return to work part time. The ICT component of the initiative consists of an online portal for employment which is linked to additional tools such as news feeds, social media links, online and offline counselling options. The initiative is a needs-driven and outcomes-oriented solution which aims primarily to help stay-at-home mothers (80% of current users) find employment. However, it also helps young people, disabled people and retired people find flexible employment. In addition, the portal supports independent professionals, entrepreneurs, and freelancers who are looking to boost their careers and who use the services provided by Flexipraca to develop their portfolios of clients or business plans.

Box 6 - Examples of ICT-enabled social innovation initiatives in Employment

Cantal Telecentres Network is a network of 10 'telecentres' or ICT-enabled office spaces set up by the department of Cantal in south-central France. The project was launched in 2009 to provide working spaces within the local community in Cantal for 'telecommuters' or remote workers who use ICTs to improve their economic conditions. Thus, more people are encouraged to live and work in Cantal, which boosts local socio-economic development, and at the same time addresses the issue of rural de-population in the region. The project is now in its second phase: i.e. the establishment of a local outreach strategy and the development of the Network of Telecentres of Cantal to develop rural employment. This network offers training and information, and supports Cantal through the establishment of tools, and services for communication. These fit within Cantal's 4 strategic objectives for telecommunications work: (i) promote employment in Cantal by increasing the numbers of telecommuting employees; (ii) develop and support independent and remote ICT workers; (iii) develop ICT-enabled teleactivities/businesses and attract new stakeholders; (iv) develop the e-medicine sector. To this end, an extensive communications plan is being deployed in collaboration with Cantal Expansion, which aims to create jobs in Cantal, especially for people who often have difficulty in being recruited because they are geographically isolated, have disabilities, or are women who want flexible working hours. Each of the Telecentres established to date has focused on a different sector of the telecommuting market in order to reduce internal competition and increase value-added collaborations between Telecentres in the network. So far, 10 Telecentres have been opened, which have directly created 58 jobs, and are used for self-employment and employment purposes by 349 people, with a combined total of 37,500 user hours. These benefits have been achieved with a relatively small financial investment per telecentre of 22,500 Euros initially and operating costs of 10,840 Euros thereafter.

The Employment Service of Slovenia (ESS) is an initiative set up in 2014 by the Slovenian government's Ministry of Labour, Family, and Social Affairs, which aims to increase nationwide employment in Slovenia. The Employment Service of Slovenia: (i) benefits jobseekers who can find available/fulfilling employment, plan their careers and realise their short-term and long-term employment goals; (ii) benefits employers who can find suitable employees to fill their job needs; and (iii) boosts employment and economic growth in Slovenia. The service is enabled by an online platform which provides the following services: (i) employment advice and job search facilities, advertising, and employment/employee matching services; (ii) life-long career guidance services; (iii) unemployment benefit and unemployment insurance; (iv) implementation of active employment policy measures and programmes; (v) issuing of work and employment permits for foreign workers; (vi) preparation of analytical, development, and other professional materials related to ESS activities; (vii) labour market and ESS information of a public nature. In addition, the ESS operates an eAdvice (eSvetovanje) service that provides comprehensive and integrated career advice and job search support services (<https://esvetovanje.ess.gov.si/>). The topics covered on the eAdvice platform include: (i) assessment of personality, interests, competences, values, time management; (ii) description of occupations; (iii) labour market information; (iv) decision making processes; (v) individual activation plans. The eAdvice service is targeted to all job seekers, although it is more often used by younger people, who have more experience in using e-services. Google statistics show that 10,872 users have visited the online-platform (98% from Slovenia, 1% Macedonia, 1% worldwide), and that there have been 186,438 page views since November 2014. In addition, user feedback has been positive. and is used to guide regular improvements and updates on the ESS platform.

Social assistance and social care are two other important areas in the sample. They account for a total of 43% of the initiatives mapped (22% deal with social assistance and 21% social care). Clearly these are two core areas of social services delivery and are implemented in different manners in the various EU countries according to different welfare systems and governance models. For this reason too it is not always easy to distinguish the services provided in these areas from broader social policy reforms. It is indeed this type of initiative that can produce the 'systemic' effects we are looking for, as services in these areas are provided through (or aim to achieve) integration at different levels of delivery and type. Nevertheless, in some cases initiatives originate outside the boundaries of public service and are integrated later if they are successful. Boxes 7 and 8 describe some examples.

Box 7 - Examples of ICT-enabled social innovation initiatives in Social Assistance

SocialXChange is a public initiative of the General Direction of Social Care and Child Protection in the District of Bucharest, Romania. The initiative has opened a charity shop for less advantaged people in Bucharest where, with the help of ICTs and the effects of social networking, access to goods and services is provided. The project recognizes that the public sector is unable to address all the needs of the people living in precarious situations or who are in need of social assistance in the city of Bucharest. In order to fulfil these needs with the help of the community of care, the initiative developed an online platform and enabled a social network effect around it to gather volunteer support and donations. So far the services delivered consist of donations of goods (food, clothing, shoes, stationery toys, electronics, books, etc.) and also services (cleaning services, computer courses, sports activities, painting classes, dance courses for children, baby-sitting, show tickets, etc.). A portal, enabled by an online donation form, facilitates the exchange of goods and services between private donors (individuals or companies, charities) and the people who need them. The initiative is well connected on social media and many of the donors access the initiative through Facebook. The ICT component gives this initiative disruptive innovation potential since the use of the technological and social networking components results in a new way of addressing social needs from the perspective of the public sector. The initiative is innovative in the way in which it manages to involve the community of care in solving societal problems such as poverty, lack of care services for the elderly and so on. The volunteers/ donors and end users engage in an open process of co-creation of services, which also helps them to become more socially responsible and involved in their communities. The charitable activities and goods provided contribute to achieving a more inclusive community. Since its release, the initiative has run many campaigns which have enabled the collection and exchange of goods and services between those who can offer their time and resources to those in need.

Noise Solution was founded in 2009 in the east of England to achieve social inclusion/participation impact through music and technology education/training programmes. The Noise Solution social enterprise works for public social services with hard-to-reach young people in East England. Its goal is to bring them back into employment or education and improve their self-confidence and social skills. This is achieved through a customised one-to-one teaching/training programme, where clients learn how to use their computers to create music through a sequencer called Reaper, which can be downloaded for free. The software allows users to manipulate multiple streams of audio, editing, mixing and they can produce tracks out of it in a style which mirrors their preferences. Learners can also gain Art Awards, which are nationally recognised qualifications that can be used to build-up credits towards a college place. Learning outcomes are registered in a blog diary, and tracks and clips that mix blog entries, visual materials, and music are prepared, produced, and shared through learners' social media networks. Overall, Noise Solution delivers over 50 one-to-one teaching sessions a month (83% attendance rate), achieving a 71% increase in clients' perception of their own self confidence and a 59% increase in clients' perception of how

good they felt about themselves. Among a sample of students referred from the Youth Pathway Mental Health Team, almost 50% went into voluntary placements, 30% into education, and 20% into employment.

Box 8 - Examples of ICT-enabled social innovation initiatives in Social Care

Netari was launched as a pilot project in 2004 in Helsinki by the city's Youth Department to widen access and take-up of social services by young people. In 2008, with the support of the Ministries of Education and Culture and of Social Affairs and Health, the project was scaled up nationally. The service allows public youth-services to establish contact with young people who spend a large part of their time in various Internet environments and would otherwise not be reached. Netari online youth work is performed in two network environments popular with young people, Habbo and IRC-Galleria, more recently a Facebook page and Twitter account have also been opened. Young people can interact between themselves and with professionals, including in a safe, intimate setting, about the issues they are most interested in, including health, sexuality, addictions, legality, employment and education. The initiative was successful both in terms of reaching-out to young people in need and in terms of enhancing the productivity of youth workers. Netari uses social platforms already popular between young people as a virtual environment where youth workers can safely provide information and counselling on relevant topics. It also provides information on existing off-line services, both via private chat or video-conferencing. From a social innovation perspective, the initiative is creating public value by improving young people's trust in government services, reaching out to them using the most appropriate channels. Furthermore, users are often trained by youth workers to become assistants, who can give informed peer-to-peer support to other users, whilst keeping youth workers up-to-date with young people's needs. The initiative has achieved high integration between different departments and levels of government, and also with private and third sector organisations. The project is now led by Save the Children Finland (which took over from the Ministry of Education and Culture in 2010), and more than 80 municipalities are involved in the project. A range of professionals provide on-line counselling, for example: youth workers, health professionals, social workers, nurses, police-officers, employment service officers and others. Whilst the initiative is funded by the central government, integration occurs at both administrative, organisational and delivery level.

Supporting elderly care givers in Vasternorrland county: the Supporting Elderly Caregivers initiative was launched in 2007 by the 5 local authorities that make up the Association of Local Authorities in Vasternorrland County in Sweden. It is partly funded by the Swedish Institute of Assistive Technology in the public sector, and Telia Sonera, a private sector telecommunications company. The initiative provides informal (family) caregivers of older people in Vasternorrland county, north Sweden, with ICT-enabled support in the form of videophones and internet access, so that they can: (i) interact with other caregivers; (ii) interact with health professionals; and (iii) engage in caregiving education, information, and training services online. The aim of the initiative is to provide informal carers with flexible, appropriate, and interactive support, to reduce health/social issues among carers (e.g. loneliness, depression), and to increase the quality of care they can provide to older people. This is particularly important in Vasternorrland given: (i) the increasing number of older people wanting to live independently at home; (ii) the rural isolation and lack of nursing homes/formal carers accessible to older people; and (iii) the importance of informal (family) carers who account for 70% of care for older people at home. The main benefits of the initiative have been documented on a Care Effectiveness Scale. Informal caregivers report a 30% increase in preparedness, enrichment, and predictability of the homecare services they are able to provide older people. E-care support (ICT-enabled) has been found to be more flexible, available, and individualised than the previous (non-ICT-enabled) support.

26% of the initiatives in the 2014-2015 repository target older people as the main beneficiaries or deal with a related Active and Healthy Ageing and Long-Term Care challenge. The three policy themes within the AHA & LTC area are overlap considerably (as explained above, see §3.2). Overall, 24% of the initiatives in the sample gathered in 2015 target integrated health and social care. 21% of the initiatives address the challenges of independent living in the home environment and 21% aim to support the prevention, health promotion and rehabilitation of older people, an area that was first covered by the IESI research project in 2015.

Box 9 below presents some examples in the areas of integrated care and independent living, and a more detailed description of initiatives that promote prevention, health promotion and rehabilitation is presented in §6.3.

Box 9 - Examples of ICT-enabled social innovation initiatives in Active and Healthy Ageing and Long-Term Care for older people: Independent Living and Integrated Care

Sotiria aims to modernise rehabilitation services, and help patients with multiple chronic morbidities - particularly elderly patients - to live independently at home with the help of ICT-enabled supervision and monitoring. Furthermore, the initiative has a strong preventative focus. It seeks to avoid the exacerbation of disease and subsequent hospitalisation by offering constant remote and face-to-face support and training to both patients and their family carers. The initiative has achieved high degrees of integration between health and social care. Besides effectively addressing an existing social need, the initiative has succeeded in establishing a network for innovations that performs very well. 18 partnerships have been put in place, involving users and public and private delivery partners from different sectors, research and innovation partners and IT providers who continually collaborate to update, improve and scale up the service. This multi-disciplinary and multi-sectoral approach is one of the key success factors of the initiative. It is reflected in the continual collaboration among a dynamic team with interdisciplinary competences, and it allows the adjustment of existing technology to the individual needs of each patient, the holistic provision of integrated care and the involvement of patients and also their families in care management. Since its inception, the E-health Unit has achieved remarkable results in terms of reduced re-admission rates and length of hospital stay, reduction in visits to clinics and emergency rooms, cost-effectiveness for the public health systems and, most importantly, increased well-being of patients.

The **Esther network** is a partnership between 13 municipalities and 3 hospitals in Southern Sweden. It aims to provide integrated, personalised and patient-centred care to elderly people. The network is made up of over 7,000 individual members, who represent a broad range of public, private and third sector institutions across the health and care sector. It is structured as a network that operates in each municipality, where Esther coaches are trained. Third sector and private organisations that provide services for elderly people play a fundamental role in ensuring continuity and quality of post-clinical support. In addition, members of the network are also committed to actively collaborating with patients and their families to design person-centred services, that meet their needs. The network organisation is non-hierarchical, and membership is voluntary. It has only a small dedicated budget of around 100,000 euros per year and members carry out nearly all the tasks necessary to make it work, as part of their day-to-day activities. In the case of IT and training activities, grant funding is used. Patients and families who take part in network activities to improve services only receive small gifts such as books or flowers. Despite the fact that most of its work is voluntary, the network covers health and social care delivery for a population of 110,000 (around one third of the region's total population), and is growing every year. *This voluntary commitment to elderly patients' wellbeing is what makes the initiative both unique and very socially innovative.* It has achieved remarkable results in terms of better quality of care, patient satisfaction, and savings for the public sector.

Approximately 23% of the initiatives target another area introduced into the 2015 mapping exercise, civic engagement, which is the primary field of activity for around the 6% of them. This field seems promising in terms of ICT-enabled social innovation potential, particularly to enhance transparency, collaboration between user and service providers and access to and take up of services. This confirms one of the hypotheses advanced in the 2014 mapping report (see Misuraca et al., 2015). (See Box 10 for some examples of initiatives in this domain).

Box 10 - Examples of ICT-enabled social innovation initiatives in Civic Engagement

Innovillage is an open innovation community which carries out both web-based development and face-to-face activities, where actors meet in person (workshops, tutor training, events, innovation competition, etc.). The web-based platform of Innovillage was developed to allow public service providers, users, and policy makers to co-design and share innovative practices and models. Besides making the public sector innovation process more transparent and collaborative, the platform avoids duplication of efforts in the creation or improvement of social and health services. It provides a collaborative development environment where people can work together, produce, and evaluate novel solutions and service innovations across sectors and regions. The involvement of various stakeholders also allows community members to better foresee and master the possible unintended consequences of the innovation process, avoiding or correcting pitfalls and working at system level. Innovillage focuses closely on activities which aim to transfer successful initiatives across sectors or scaling them up from the local to the national level. The initiative achieves high levels of both ICT-enabled innovation and social innovation. It allows a totally new approach to innovation in public social services, based on ICT-enabled co-design, co-delivery and co-evaluation of services by involving a wide range of stakeholders, including beneficiaries, throughout regions and sectors. Innovillage is a multi-sectoral initiative, and integration occurs at both funding, administrative, organisational and delivery level.

The **dotHIV** initiative is a website domain service, which was set up by a social enterprise in Berlin, Germany, to help stop HIV/AIDS around the world, to fight discrimination against people suffering from HIV/AIDS and to help patients with poor economic backgrounds to get access to the care they need. In terms of ICT-enabled innovation, the initiative falls into the radical category, as ICTs form the backbone of all the elements of service provision and operation. ICTs are changing the way various organisations, service providers and beneficiaries interact and are allowing the creation of new innovative collaborations and funding models. dotHIV operates an 'online domain' (.hiv) as its main service infrastructure, which links web addresses to Internet Protocol (IP) addresses. This online domain allows people to set up web content or find and interact with it and maintain email addresses. dotHIV's fundraising model uses an online micro-donation system that operates exclusively through ICTs. When users buy a .hiv domain, they get an invitation to sign up for the micro-donation programme. If they accept the invitation, an online "click counter" is integrated into the settings of their website domain. This online analytics tool monitors in real-time how many visits there have been. One visit equals 1 cent Euro, which is donated to selected organisations and charities, thus the click counting directly translates into micro donations. In 2011, around 700.000 euros were raised and reinvested to fund HIV/AIDS related projects around the world.

As already mentioned in Chapter 3, (§3.3), with regard to the inventory 2015, there are fewer initiatives in our sample in the childcare and social housing categories, respectively 12% and 7%. Concerning childcare, the lack of ICT-enabled social innovation initiatives seems to be mainly due to the fact that the use of ICTs in providing services outside the home-environment to children below compulsory school age is not yet a wide-spread practice in any EU country, both because of the high costs and the

scarce availability of children-specific technology in most EU languages (Formby 2014). In addition, it must be considered that according to Eurostat (EUROSTAT 2015a) in 2013 the 72% of the EU28 had no formal childcare facilities for children aged below 3 years old in place, and that less than half of the EU28 countries had formal childcare facilities for children between 3 years of age and compulsory school age. Some examples are reported in Box 11.

Box 11 - Examples of ICT-enabled social innovation initiatives in Childcare

Little Bird is an ICT-enabled solution developed in Germany. It is a software-based system which restructures the search, allocation and administration of childcare services including all possible corporations. Customers are mainly municipalities, cities, administrative districts and corporations of youth welfare services. In particular Little Bird can be easily integrated into any administrative structure and thus the service is strongly conceived to meet the requirements of local municipalities throughout Germany as well as it could be easily customised to meet their needs. Little Bird mainly consists of two interacting elements: 1. the administration software is a customizable working platform for all the sections that are relevant in the process of allocation and administration – directors of kindergarten, heads of corporations, governments of municipalities, cities and administrative districts; 2. the portal for parents in which all possible suppliers of childcare services (corporations, municipalities, administrative districts) introduce themselves giving parents the possibility to directly place childcare requests online. The allocation of childcare places is administered in a transparent and effective way: providers can plan and monitor their resources real-time; families get an overview of all childcare services (privately and publicly owned) and the available vacancies for child care services. Public administrations get an overview of spare capacity or surplus demand in the childcare sector and can optimize internal administrative processes and administrative costs. The qualitative feedback from providers and families on the website shows that the service is efficient. Internal statistics and the rising numbers of interested municipalities and other providers indicate that the service has been well received since its implementation. An external study conducted in 2009 by the Advanced Technical College for Public Administration in Dortmund states that compared with other initiatives in Germany, Little Bird is the most efficient way of meeting the needs of the beneficiaries.

KiBiz.web calculates state subsidies for day-care centres and distributes them to the municipal child welfare departments. BMS Consulting developed KiBiz.web using a participatory approach which involved all the relevant stakeholders like the Ministry for the Generations, Family, Women's Affairs and Integration, the state youth welfare offices and the Associations of Districts of North Rine-Westphalia in Germany. The subsidy funding - about one billion euros annually - is distributed quickly, efficiently and transparently via KiBiz.web. The tool is easy to use, increases reliability and data security and makes the required information more easily available, reducing costs significantly. This process required the close cooperation between 12,000 stakeholders from all administrative levels. These stakeholders could execute various tasks through from the application from funding to approval and all related reporting processes. The service is integrated on an inter-sectoral level by supporting the collaboration of all involved stakeholders across multiple levels of government and service delivery providers and creates a central database with an efficient and effective case management. Centralized information is exchanged in a multidisciplinary teamwork through optimized and transparent processes and information management. Integration occurs at the administrative, organisational and delivery level. Qualitative feedback from employees from the state government and some users confirmed that the platform provided the right support and fostered efficiency and transparency.

As for **social housing**, in the first place it must be remembered that this is not, as yet, a very widespread phenomenon in Europe. Less than 10% of the EU population pay reduced rates on housing. In addition, social housing is very common in some countries where ICT-enabled social innovation is relatively rare (such as Malta, Greece or Bulgaria) and almost non-existent in countries where ICT-enabled social innovation is relatively widespread as in Sweden, Denmark, or the Netherlands. In addition, there is a lack of recognition of the importance of ICT in delivering social housing services among the practitioners. Stakeholders consulted confirmed that ICTs were certainly an enabler for most housing associations, at least at the technical/organisational levels, but that awareness of the importance of ICTs and information about specific tools in place was scarce.

The initiatives documented as part of the 2015 mapping exercise still seem to indicate that ICT-enabled social innovation has huge potential to foster both quality and cost-effectiveness in social-housing services. This seems particularly the case in terms of promoting the integration of services and active inclusion strategies, as shown by the examples in Box 12.

Quality improvements and cost-effectiveness needs to be understood in comparison to a non-ICT mediated initiative, i.e. as shown in the examples below, where ICT can enable access to information after a welfare reform or mobile access to client records for housing officers. The second example in Box 12 is about an energy management system which directly reduces energy costs for social housing tenants.

Box 12 - Examples of ICT-enabled social innovation initiatives in Social Housing

AmicusHorizon (AH) is a social housing and services provider, responsible for the management of 28,000 houses in London and the South of England. In 2013, AH integrated into its existing Customer Relationship Management (CRM) system the financial inclusion mobile app 1st Touch. AH's implementation of the 1st Touch mobile app for financial inclusion was strongly influenced by the entering into force of the Coalition Government's welfare reform. AH officers needed an efficient way to help tenants navigate the reform and understand to what benefits they were entitled. The 1st Touch mobile app allows AH's financial inclusion officers to access anywhere and anytime all the relevant information concerning their social housing tenants. The app enables them to identify customers who might struggle to pay their rent in advance, and to automatically schedule appointments to discuss possible solutions directly with these tenants. Potential solutions for social housing tenants include reviewing training opportunities for those keen to return to work, or identifying unclaimed benefits. In terms of impact, AH's CRM and the 1st touch initiative have resulted in £1.7million of additional income for residents in benefits claimed, and a reduction of rent arrears from 3.71% to 3.39% a year. In addition, the 1st Touch app has greatly contributed to raising both AH's financial inclusion officers' productivity (each officer is able to achieve two more visits a day) and AH's customer satisfaction rates.

The '**Saving Energy in Social Housing with ICT**' (eSESH) project designed and piloted innovative ICT-enabled solutions for sustained reductions in energy consumption across European social housing. eSESH provided social housing residents in 10 European countries with ICT-based Energy Management Systems (EMS) and Energy Awareness Systems (EAS), which enabled emission reductions and cost savings for social housing tenants, associations, and governments. Simultaneously, these systems also improved tenants' ICT skills and interest in environmental sustainability. Across 10 European social housing associations, tenants were given access to Energy Management Systems and Energy Awareness Systems through a web-based platform that allows users to quickly and easily obtain energy consumption information for their property at monthly or daily intervals. Tenants then use this information to monitor and evaluate their consumption, and to implement ideas and strategies to lower their consumption levels and costs. In this way, eSESH also gives social housing providers and local/regional/national

government effective ICT monitoring and control of local heat and power generation. It also provides rich quantitative data for optimising social housing policy and energy investment decisions. The project was very successful and the service was continued after the EU grant expired. All 10 eSESH pilot locations decided to expand their service offerings.

In conclusion, the 2015 Mapping was successful in addressing most of the gaps identified in the 2014 mapping exercise. However, it also confirmed that ICT-enabled social innovation initiatives promoting social investment through integrated approaches to social services provision are unevenly deployed across Member States and PSSGI areas. In addition, evidence of impact achieved is hard to find outside the UK and Nordic countries.

Nevertheless, the dynamic mapping exercise conducted so far shows that the phenomenon we have labelled as ICT-enabled social innovation is expanding and it is taking advantage of the rapid development and pervasiveness of ICTs. It also impinges on various socio-cultural shifts and emerging trends in the design and delivery of social services, as identified in the review of the state of the art (see Misuraca et al, 2015, Chapter 3 and Chapter 3 of this report).

For this reasons, as we will see more in detail in §5.2 and §5.3, welfare traditions and administrative cultures, and also the take up of existing ICTs, and emerging and prospective technologies are important factors to be considered when assessing the possible replicability or transferability of specific initiatives. This will be further studied in the next phase of the IESI research in 2016, when a third round of mapping will be integrated with the mapped database built during 2014 and 2015 and consolidated for analysis. It is expected that we will then have a more balanced sample that better illustrates the level of deployment of ICT-enabled social innovation in the European Union.

5.2 ICT-enabled social innovation and welfare systems

Because of the importance of the systemic problems afflicting European social systems and the pressing need to modernise the social protection architecture, **the quantitative analysis looks at the mapped initiatives predominantly in relation to welfare state regimes.**⁷³

As anticipated earlier (see Chapter 1 and 4), one of the gaps identified in the first IESI mapping exercise was the lack of references to different welfare system typologies and their influence on the presence and characteristics of ICT-enabled social innovation initiatives that promote social investment through integrated approaches to social services delivery across the EU28.⁷⁴

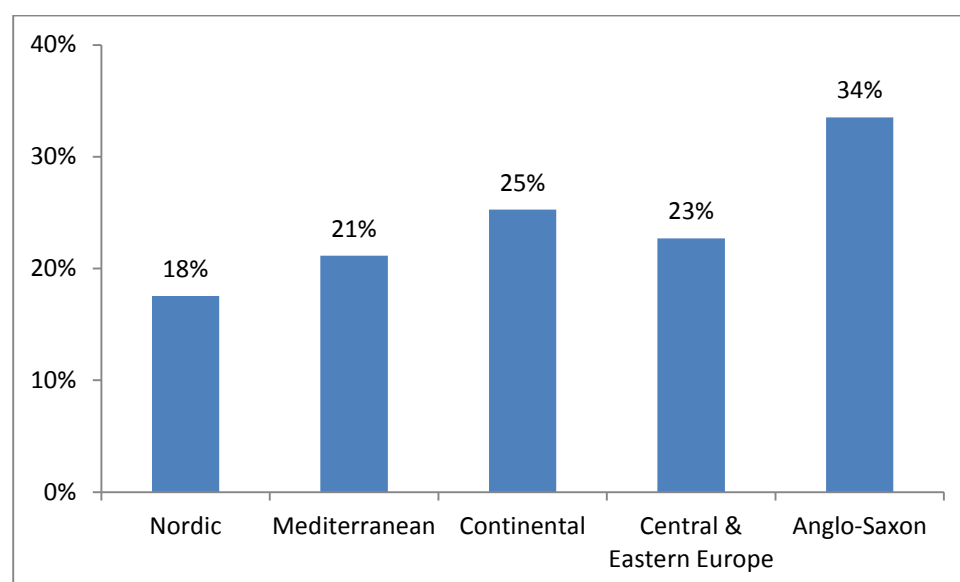
⁷³ Please note that it is always the "multiple choice" v "multiple response" nature of the "looked at" variable – through the lens of the welfare state regimes – that defines whether the percentages reported add up to 100 % (multiple choice), or go beyond that (multiple response). E.g. in Figure 20 the percentages go beyond that (121 %), because an initiative could operate in a cross-country set-up and each welfare regimes are counted for; while Figure 21 shows that each welfare state regime individually could only operate in a distinct, mutually exclusive set-up, so either in a cross-country, or a national, or a regional or a local administrative area, and therefore their sum is exactly 100%.

⁷⁴ As mentioned earlier, a specific study has been commissioned by JRC-IPTS to understand better the link between welfare typologies and density/characteristics of ICT-enabled social innovation initiatives, and in particular how they could support the endeavour of modernising the social protection systems throughout the member states. This study is part of a complementary component of the research and is to contribute to in-depth case studies carried out as part of WP3 - Thematic Analyses and the development of the i-FRAME, as part of WP2. However, although the study is ongoing at the time of writing this report, it was guided by initial insights that could partly already have been distilled here. For example, several

To address this challenge in the 2015 mapping, the 28 EU countries have been categorised into five welfare system clusters, namely: 1. Nordic; 2. Anglo-Saxon; 3. Continental; 4. Mediterranean; 5. Central-Eastern (see §4.1).

The large share of initiatives from Anglo-Saxon and Nordic Countries (34% and 18% respectively) reflects the broad availability of both ICT-enabled social innovation initiatives and evidence of outcomes in these groups. However, the strong presence of initiatives from Central-Eastern Europe (23%) is mainly due to the selection criteria used by the researchers in the 2015 exercise in order to address a gap identified in the 2014 dataset. Concerning Mediterranean and Continental countries, the scarcity of evidence for certain countries (and namely Cyprus, Greece, Luxemburg, Portugal and Malta) partly explains the relatively low number of initiatives in these welfare clusters compared to their demographic weight. However, the focus on Eastern countries in the 2015 mapping exercise could also contribute to the apparent under-representation of these latter groups of countries.

Figure 20: Welfare states distribution - % of initiatives with at least one EU MS (n=194)



Source: own elaboration.

It is a considerable challenge in itself to understand in just how many complex ways a welfare system context may influence an initiative. This challenge is further complicated if the initiative's area of operation spans more than one welfare state. In fact, although **91% of the initiatives in the sample (n=194) have been implemented within a single EU welfare system, 9% of these operate across multiple EU-welfare systems.** This means that, due to the presence of numerous cross-border initiatives, 1.2 welfare states were involved in each of the 194 initiatives on average.

The sample was therefore cleaned of 18 cross-welfare cluster initiatives, so that **the welfare system clusters subsample consisted of a total of 176 initiatives:** 27 initiatives for Nordic countries, 30 initiatives for Mediterranean countries, 35 initiatives for Continental countries, 33 initiatives for Central & Eastern Europe and 51 initiatives for Anglo-Saxon countries (n=176).

interesting hypotheses on how welfare structures and ICT deployment levels might relate to ICT-enabled social innovation can be made by analysing in a comparative way the initiatives filtered by welfare typologies (i.e. each welfare cluster contains only initiatives operating exclusively within the borders of that welfare cluster).

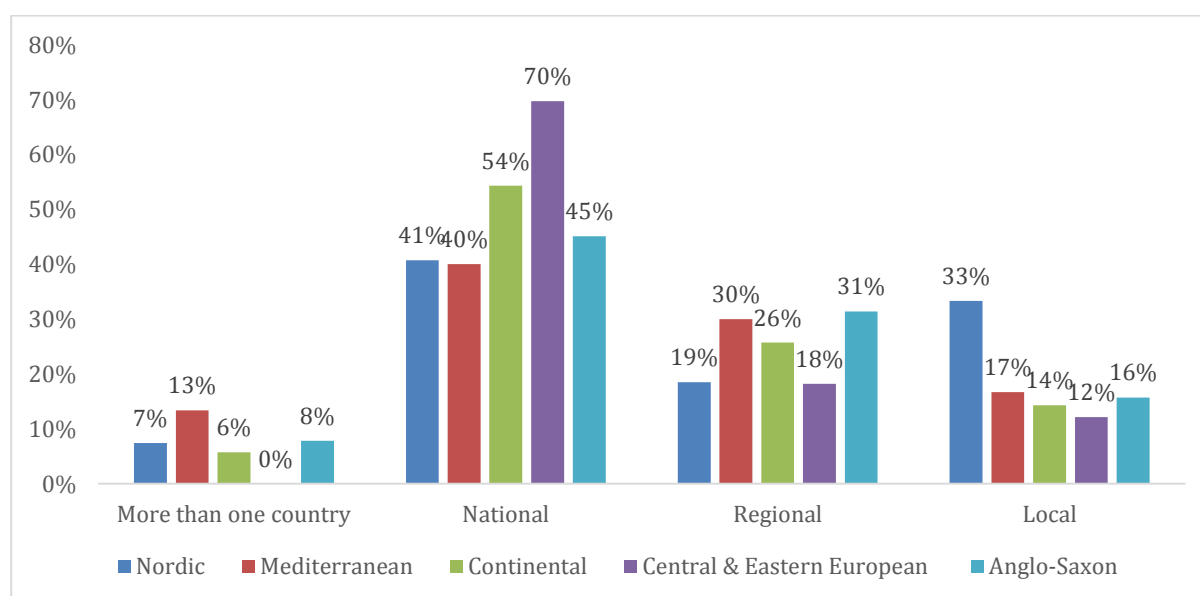
5.2.1 Characteristics of ICT-enabled social innovation initiatives belonging to different welfare typologies

A first question we can try to answer by looking at our sample is if there is any **difference between welfare clusters in terms of maturity and scale of ICT-enabled social innovation initiatives**. Six variables in the IESI template for data collection can be used as a proxy to this end, namely: a) level of deployment; b) staff size; c) full cost; d) date of implementation; e) strength of innovation; and f) strength of evidence of impact.

We focus here on the first 4 variables and will discuss the last two in §5.3.3.

a) **Levels of deployment:** initiatives implemented at the national level are dominant in all the 5 welfare clusters. However, their weight is bigger in Central & Eastern European and Continental countries. In Nordic, Mediterranean and Anglo-Saxon regimes, regional and local initiatives together make up a larger share than national initiatives. International collaborations – even those between Member States belonging to the same welfare typology – are particularly widespread in Mediterranean countries, while they are totally absent in Central & Eastern countries.

Figure 21: Welfare typologies: levels of deployment (n= 176)



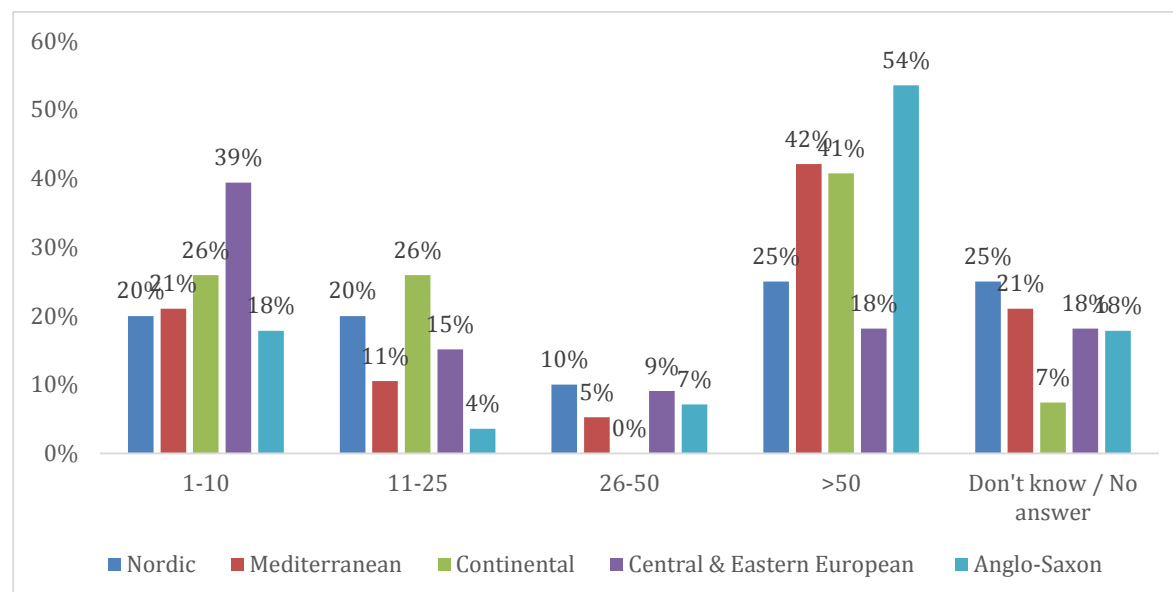
Source: own elaboration

b and c) **Staff size and costs**, (n=124)⁷⁵: we can see that in Nordic countries the initiatives are relatively uniformly distributed between the 4 staff categories, and that the relationship between costs and number of people employed does not appear to be direct. Most of the initiatives are in the >500k cost range, and around 20% of them have over 10 million Euros funding. None of the initiatives are below the 250,000 Euros investment threshold. In Mediterranean countries, the number of labour-intensive initiatives is higher compared to costs - though the high share of initiatives for which we do not have financial information makes it very hard to

⁷⁵ Information on costs, staff, strength of evidence of impact and strength of innovation is not available for the 2014 dataset, and the analysis refers to the 124 initiatives implemented within a single welfare cluster documented in 2015. Data will be updated and consolidated during the next phase of the research.

advance any hypothesis.⁷⁶ In Continental countries, there seems to be a good balance between small-scale and large-scale initiatives, in terms of both costs and staff involved. The same is true of Anglo-Saxon countries, even though the polarisation between very small (even though relatively well-funded) and very large initiatives is more accentuated, suggesting a more 'experimental' environment. In Central and Eastern countries budgets tend to be smaller than in the rest of Europe: nearly 20% of the initiatives in the sample cost less than 100,000 Euros, and around 40% of initiatives employ fewer than 10 people. However, initiatives with a budget above 10 million Euros make up nearly 10% of the sample, reflecting the large number of national initiatives.

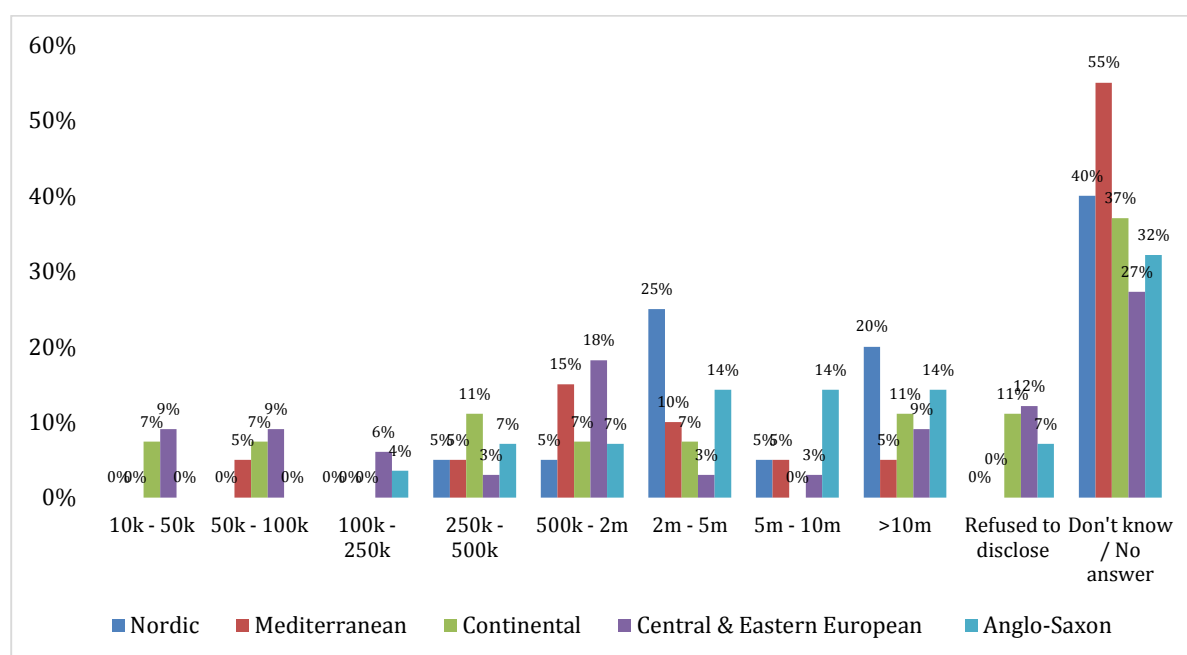
Figure 22: Welfare typologies: Staff (n=124)



Source: own elaboration.

⁷⁶ Staff size and costs are among the least accessible data as it may require extensive calculations by the case representatives and is also usually sensitive, so sometimes (especially in the case of privately run initiatives) the representatives refused to disclose it.

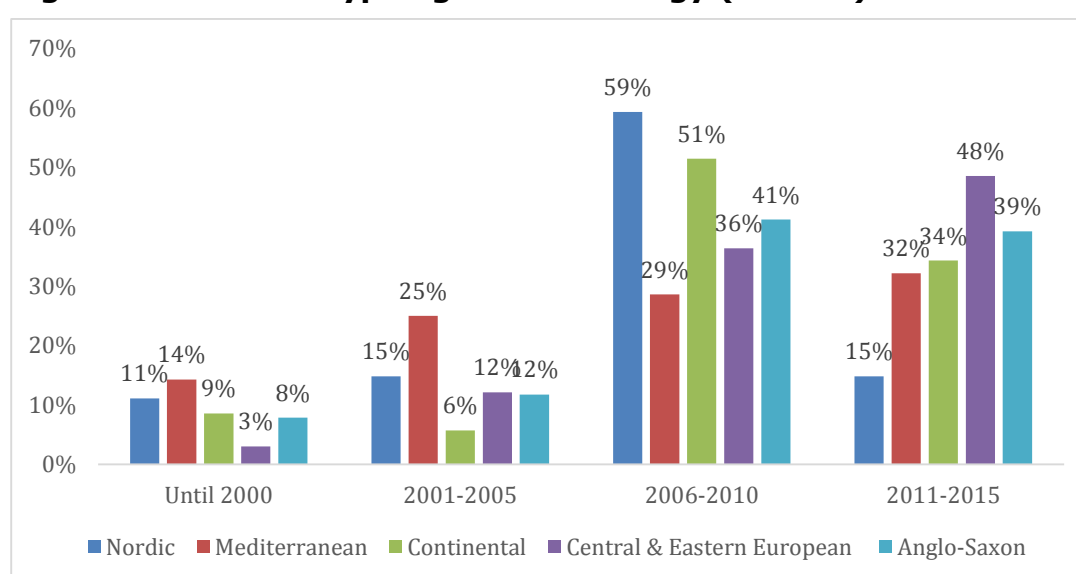
Figure 23: Welfare typologies: Costs (n=124)



Source: own elaboration

d) **Period of implementation** of the initiatives. In Mediterranean countries, a remarkable number of the initiatives started before 2006, relative to those implemented later. In the Central and Eastern welfare state model, most of the initiatives started after 2006 and the share of initiatives set-up after 2011 is the largest in the whole sample. In both Nordic and Continental countries most initiatives started between 2006 and 2010, while in Anglo-Saxon countries the share of initiatives started between 2006 and 2010 and between 2011 and 2015 is nearly equal.

Figure 24: Welfare typologies: Chronology (n= 176)



Source: own elaboration.

It is difficult to draw any conclusions from the data briefly presented above. However it seems safe to say that, in the sample, **Nordic countries are characterised by high levels of investment in a wide variety of local, regional and national ICT-enabled social innovation initiatives, mostly started between 2006 and 2010.**

A similar situation can be found in the Anglo-Saxon cluster, where levels of investment are slightly lower – especially considering the high shares of labour-intensive initiatives present in the sample. However, the gap between the number of initiatives started in 2006-2010 and after 2010 is reduced compared to both Nordic and Continental countries, suggesting a higher level of investment in the last few years.

Mediterranean countries have relatively low investment levels - particularly so, if we consider the large number of labour-intensive initiatives in the sub-sample. The fact that many initiatives have been ongoing for over a decade, may suggest a reduction in investments into ICT-enabled social innovation over time. Initiatives at the local and regional level account for around the 50% of the sample, and international initiatives are more prevalent here than in any other group.

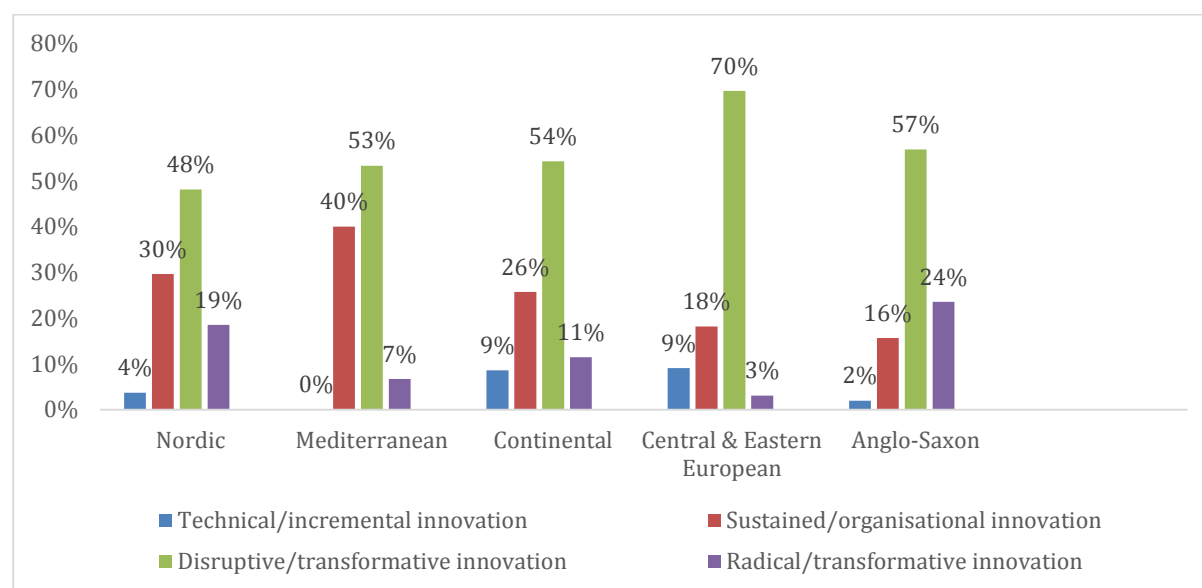
Continental Countries have the largest share of national initiatives, which are often well funded and labour intensive. However, local and regional initiatives and small scale initiatives are also widespread.

In Eastern countries, initiatives are more recent, and most of them have been implemented at the national level. However, there are also smaller initiatives at the local and regional level, often implemented by small teams with very limited investment.

5.2.2 Levels of ICT-enabled Social Innovation

If we look at two of the core dimensions of the IESI conceptual framework⁷⁷, i.e. ICT-enabled innovation potential and elements of social innovation (see Figures 25 and 26) we see that Anglo-Saxon countries perform very well particularly on the ICT-enabled innovation potential front: they have 80% of the initiatives in the full sample where ICTs act as a game-changer (i.e. either with a disruptive or a radical role) and not merely as an enabler.

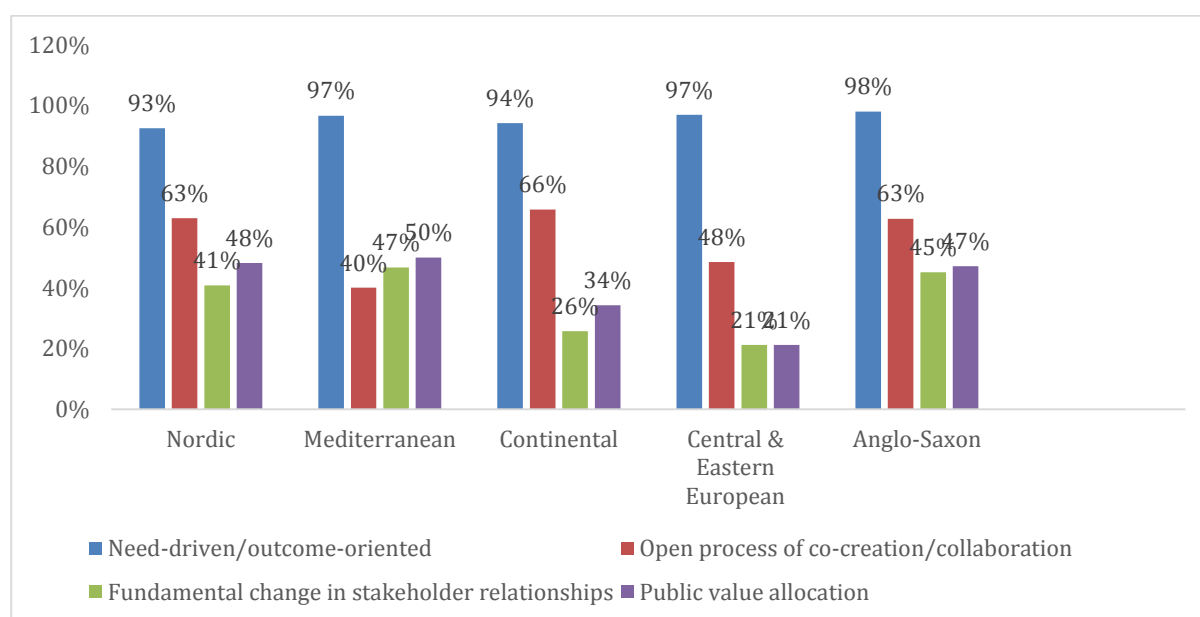
Figure 25: Welfare typologies: ICT-enabled innovation potential (n=176)



Source: own elaboration.

⁷⁷ See the "List of definitions" section at the end of this report.

Figure 26: Welfare typologies: Elements of Social Innovation (n=176)



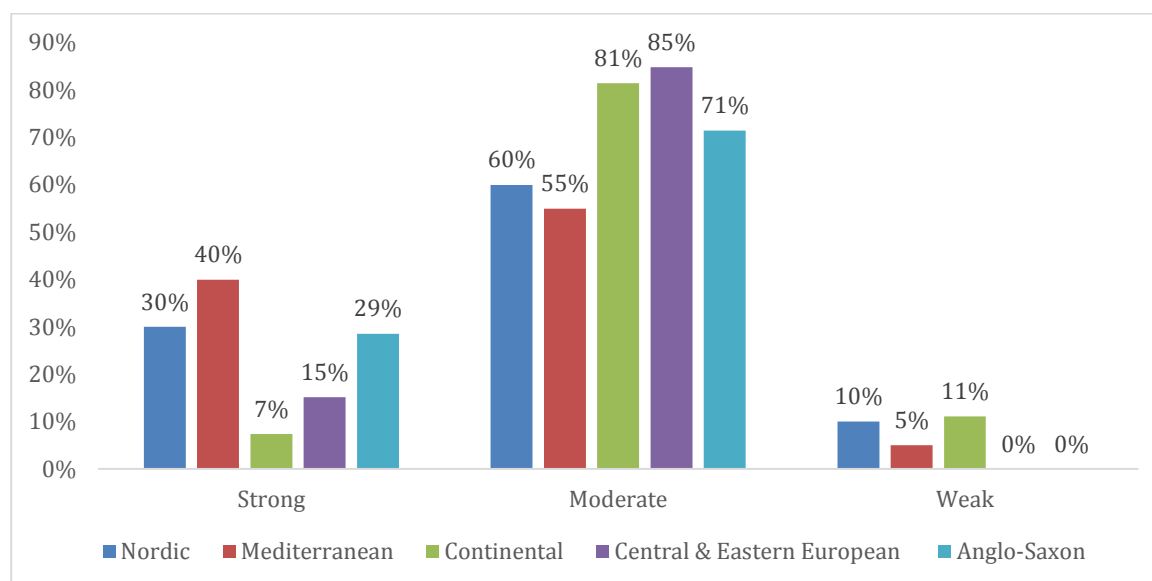
Source: own elaboration.

Nordic countries follow closely, with high levels of both ICT-enabled innovation potential and social innovation. Mediterranean countries have the highest levels of social innovation, but lower levels of ICT innovation potential, with around the 40% of the initiatives falling in the sustained/organisational innovation category. **Continental countries seem to be the most diversified.** Central and Eastern countries perform worse than all the other welfare typologies in the elements of social innovation dimension. However, they have a high number of initiatives in the disruptive/transformational innovation-potential category, and score better than all the other welfare clusters but the Anglo-Saxon.

Of course this does not necessarily reflect the situation on the ground even though, as already mentioned in Chapter 4, ICT deployment levels vary hugely across countries in this welfare group. States such as Estonia and Lithuania, for example, perform well above the EU average. In many cases, initiatives in this cluster are building on existing best practices elsewhere, as in the case of 'emergency-button' alarms which foster independent living for older people, or one-stop-shops for e-services. Finally, it must also be remembered that information available on ICT-enabled social innovation initiatives in English is relatively scarce. Also, it often refers to well-known best practices. Thus the picture drawn here could somewhat be skewed towards the better documented, older, more sustainable, more successful, etc. initiatives of these countries.

One interesting question is **how ICT-enabled innovation potential and levels of social innovation contribute together to create effective services.** In this regard, a new variable was introduced in the 2015 mapping exercise to evaluate the strength of ICT-enabled social innovation potential for each initiative (Figure 27). Interestingly, the picture that emerged from the analysis of this variable, which could be used as a first proxy for social impact potential of each ICT-enabled social innovation initiative, is slightly different from what we see when we look at the two variables separately.

Figure 27: Welfare typologies: Strength of ICT-enabled Social Innovation (n=124)



Source: own elaboration.

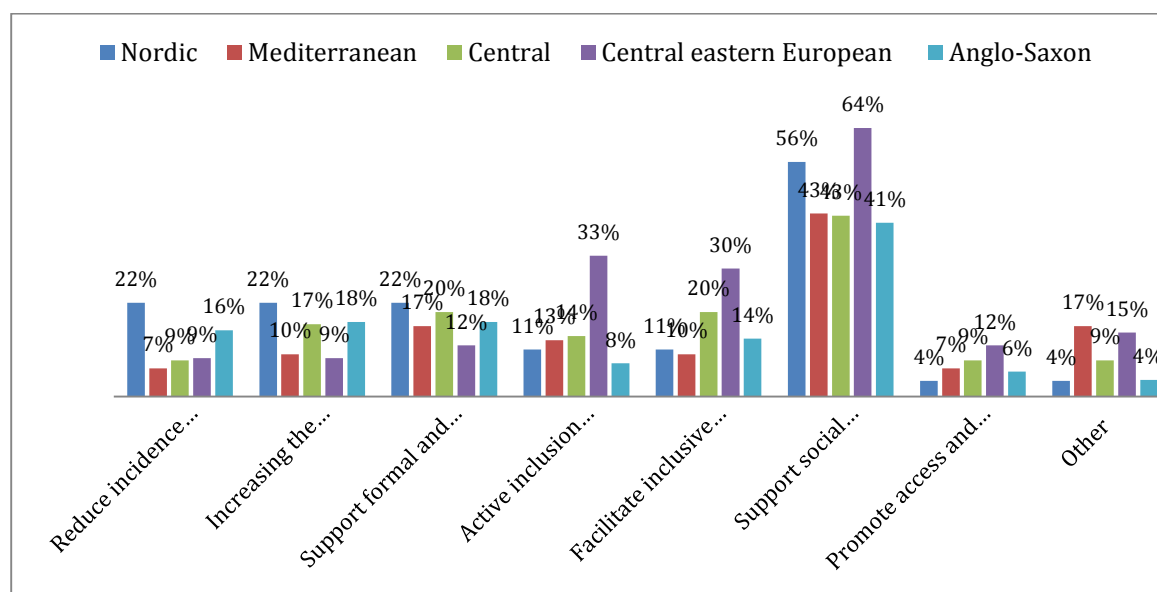
High levels of social innovation seem to contribute to the global strength of the initiatives more than high levels of ICT innovation. This is confirmed not only by the high number of strong initiatives to be found in Nordic and Anglo-Saxon countries and by the relatively low number of strong initiatives in the Continental and Central and Eastern European samples, but also by the surprisingly high number of strong initiatives in the Mediterranean cluster.

As we will see in the following sections, this might be because social innovation is a powerful means of achieving two of the most frequent policy objectives for the initiatives in our sample. These are to increase access and take-up of services by improving their quality and reaching out to the most disadvantaged (§5.2.3) and to achieve integration of services across levels and types of governments and facilitate partnerships with private service providers (§5.2.4). Both are instrumental to achieving the policy impacts sought.

5.2.3 Policy priorities addressed by initiatives by welfare state system

The strong focus of many initiatives on **social inclusion**, and particularly on creating inclusive labour markets (see §5.1) is also reflected by the initiatives' operationalised policy objectives. **Social inclusion is the only outlier as, overall, the policy objectives are evenly distributed.** Another slight 'imbalance' can be observed in the Central and Eastern countries subsample with the active inclusion/inclusive labour market policies (see Figure 28).

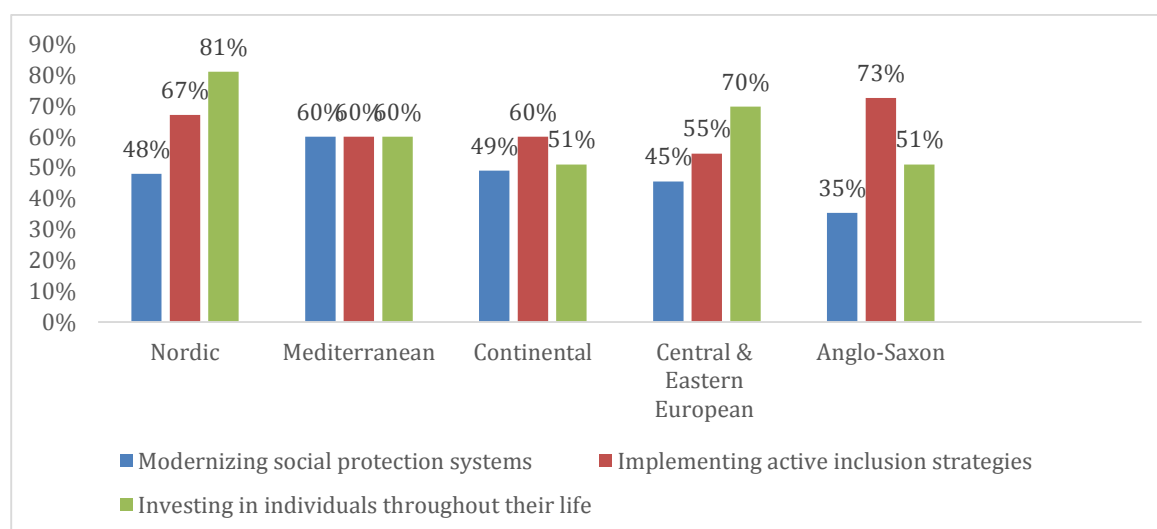
Figure 28: Welfare typologies: Policy objectives, beneficiary perspective (n=124)⁷⁸



Source: own elaboration.

We look now at the priorities of the Social Investment package (SIP) for the different welfare clusters, where there are remarkable difference (see Figure 29).

Figure 29: Welfare typologies: SIP policy priorities (n=176)



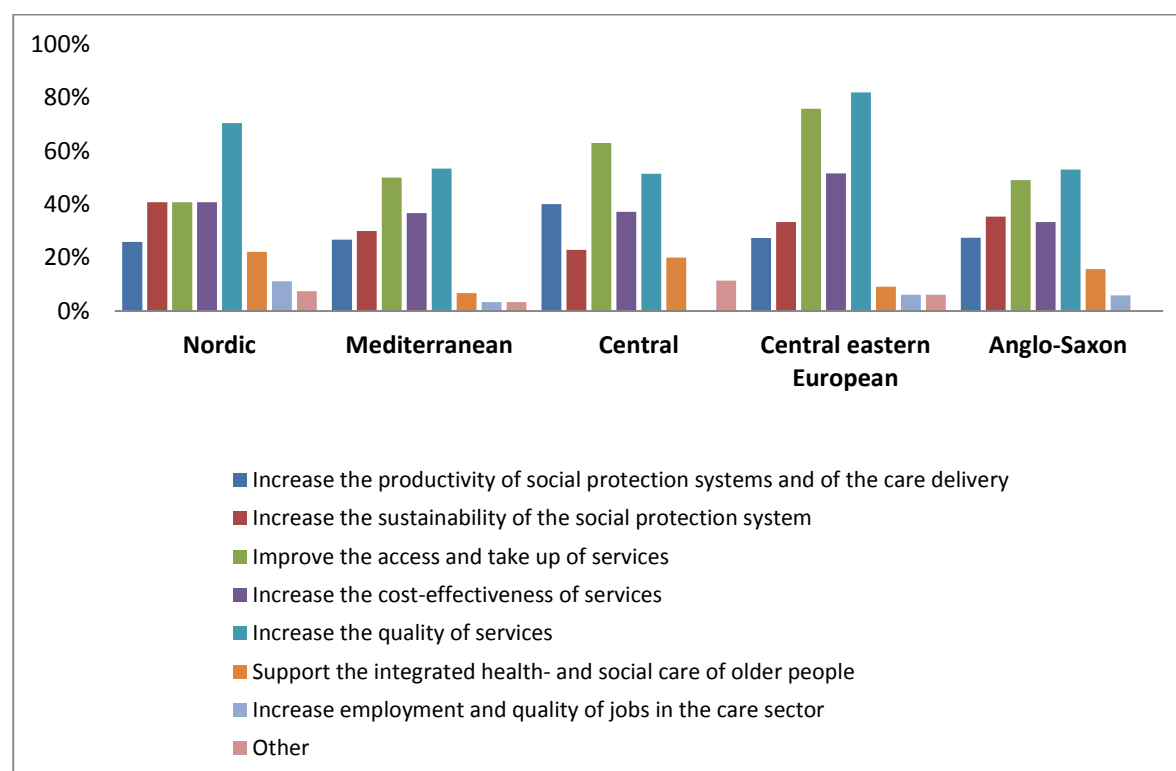
Source: own elaboration.

⁷⁸ The variables on the X Axis are: – Reduce incidence and prevalence of frailty and disability of older people: disease prevention, health promotion, and rehabilitation; – Increasing the capacities of older people to manage self-care and independent living at home; – Support formal and informal carers of older people; – Active inclusion intervention focusing on unemployed people (most distant from the labour market); – Facilitate inclusive labour markets and self-employment, including via job market intermediaries; – Support social inclusion, education and training, employment and more general civic engagement of disadvantaged groups (i.e. disabled people, immigrant and ethnic minorities, people - youth in particular - at risk of poverty and social exclusion, etc.); – Promote access and use of early childhood education and care; including supporting parents' reconciliation of work and family life; and supporting the wellbeing of children.

In both Nordic and Central & Eastern European countries, the third strand of the SIP, 'investing in individuals throughout their lives', is the most frequently addressed priority in our sample. It is followed by the priorities 'implement active inclusion strategies' and 'modernise the social protection systems'. In Continental and Anglo-Saxon countries social inclusion is the main priority, followed by investing in individuals throughout their lives and modernising social protection systems. In Continental countries, the difference between the 3 priorities is within 10 percentage points, whereas in Anglo-Saxon countries higher priority is given to social inclusion (73% of the initiatives address this issue whereas only 35% of them address the first SIP priority). Finally, in Mediterranean countries the 3 strands are equally important.

These priorities though are only partly reflected by the distribution of the initiatives according to the SIP operationalised policy objectives, as shown in Figure 30.

Figure 30: Welfare typologies: Policy objectives, service provider perspective (n=124)



Source: own elaboration.

'Modernising social protection systems' was the lowest priority **for Nordic, Eastern and Anglo-Saxon countries**. In spite of this, **'increasing the sustainability of social protection systems' scores higher in these countries** than it does in Mediterranean and Continental countries. **Quality of services is a priority for all Member States, particularly for Nordic and Eastern Countries**, while **increasing access and take-up of services is the main objective in Continental Countries**, and the second in Mediterranean, Anglo-Saxon and Eastern Countries.

Integration of services is the key to achieving all the above-mentioned objectives. This helps to provide more personalised, high quality and cost-effective services to citizens and make it easier to access them. This aspect is elaborated further in the next section (§5.3), together with a discussion of some of the possible additional dimensions we have identified in §4.3 to further 'extend' the IESI conceptual and analytical framework and better understand the implications of the analysis of the phenomenon under investigation, from both research and policy perspectives.

5.3 A richer understanding of the IESI conceptual framework

In this section, we now turn our attention to the proposals advanced in §4.3 that the **validity of the IESI conceptual framework** should be discussed on the basis of its application to a larger set of initiatives (n=210), which is also more balanced geographically and with regard to the social services areas covered (all 12 defined groups of PSSGI). For this purpose, we explore the feasibility of including some additional dimensions in the analytical framework that would allow us to comprehend better the phenomenon under investigation. We make a first attempt to describe some dimensions that we suggested as possible **'extensions' of the IESI analytical framework** and to analyse the relationships between some of the IESI variables in order to capture possible network effects (e.g. the frequency of social media technologies; the contingency tables of categorical data such as 'type of partnership governance' depending on the 12 PSSGI investigated by IESI). This analysis serves primarily to inform further research (to be implemented in the next round of mapping and through in-depth analysis of case studies) and, of course, no causation between variables can be implied as long as lurking variables influence conditional distributions without being captured by the study. Later we discuss how to categorise the initiatives in terms of strength of innovation and of evidence.

5.3.1 Policy impact and network effect of ICT-enabled social innovation

In order to explore the possible **policy impact** of ICT-enabled social innovation initiatives, two questions should be raised: 1) Which policy objectives were addressed most by the initiatives mapped? And 2) What elements of social innovation were used most to achieve these objectives?

Figure 31 represents a heat map of the 140 initiatives mapped in 2015. The most salient objectives addressed are quality and take-up of services, followed by cost-effectiveness and sustainability of services.

Figure 31: Initiatives per policy objective and Social Innovation element (n=140)

| | | | | | | | | |
|--|----|----|----|----|----|-----|-----|--|
| 9 | 10 | 26 | 72 | 51 | 58 | 104 | 109 | Need-driven production |
| 7 | 5 | 20 | 52 | 42 | 44 | 72 | 84 | Open process of co-creation/collaboration |
| 3 | 5 | 14 | 42 | 26 | 34 | 51 | 55 | Public value allocation and/or re-allocation |
| 3 | 6 | 14 | 25 | 18 | 19 | 34 | 38 | Changing relationships between stakeholders |
| <div> <div>Other</div> <div>Increased care employment</div> <div>Support of integrated care</div> <div>Cost-effectiveness of service</div> <div>Increased productivity</div> <div>Sustainability of the system</div> <div>Improved access and take-up</div> <div>Quality of service</div> </div> | | | | | | | | |

Source: own elaboration.

The dendrogram on top of the coloured matrix in Figure 31 applies hierarchical clustering to the combinations of policy objectives and social innovation elements, or put differently, objectives in one cluster are likely to be addressed in combinations such as:

- improved take-up and service quality;
- increased productivity and sustainability of services;
- improved care employment and integrated care support.

Furthermore, the 140 initiatives have the following characteristics:

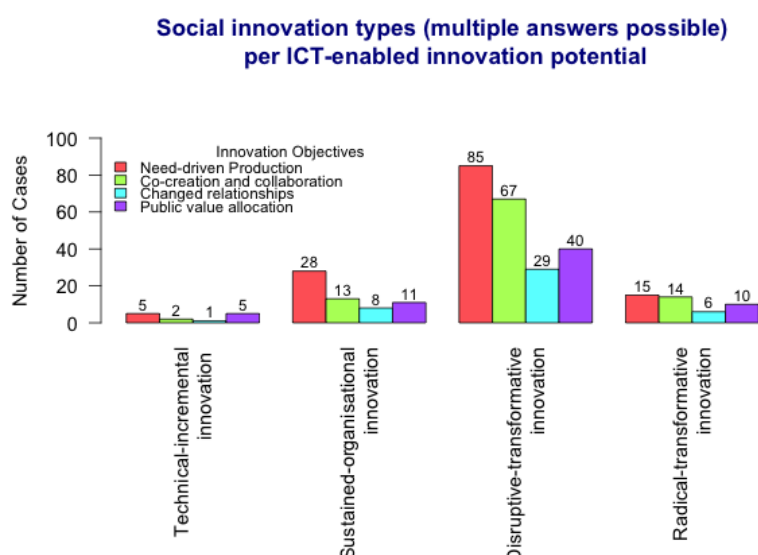
- the most frequently addressed combinations include:
 - for policy objectives: quality of service or improved take-up;
 - for social innovation elements: need-driven production or co-creation processes.
- the least frequently addressed combinations include:
 - for policy objectives: care employment or integrated care support;
 - for social innovation elements: changing stakeholder relationships or public value allocation.

In terms of the likelihood of combinations between policy objectives and social innovation elements, the analysis shows that:

- 37% of the initiatives aim to 'improve cost effectiveness' and engage in 'co-creation and collaboration' compared to 60% of the initiatives which combine co-creation with improved take-up;
- 'changing stakeholder relationships' is the least mentioned element, e.g. 27% of all initiatives which also aimed to improve service quality, also implemented 'changing stakeholder relationships';
- also, a relatively small proportion of initiatives including 'changing stakeholder relationships' was found among initiatives that aimed to improve service productivity (13%).

As shown in Figure 32 which groups together initiatives according to two dimensions of the IESI conceptual framework: **elements of social innovations and ICT-enabled innovation potential**, we note the general distribution of innovation types. Most cases include 'disruptive-transformative innovations' and relatively few 'incremental-technical innovations'. In line with the very definition of "social innovation", most innovations aim to satisfy a concrete need and engage in co-creation - regardless of innovation type.

Figure 32: Elements of social innovation vs ICT-enabled innovation potential (n=210)



Source: own elaboration.

Some examples of initiatives may serve to illustrate the relationships between different elements of social innovation and ICT-enabled innovation potential, see Box 13.

Box 13 - Examples of combinations of social innovation elements and ICT-enabled innovation potential

| Social Innovation element | ICT-enabled innovation potential |
|---|--|
| Public Counter Luxembourg | |
| <p>Need-driven social innovation:</p> <p>In November 2008, the Government of Luxembourg launched the Public Counter (Guichet) initiative as a new e-government portal (www.guichet.lu). It aimed to improve the value and quality of public services and make administrative tasks easier for citizens. Today, the Guichet.lu portal provides a 'one-stop-shop' or 'single access point' for accessing e-government services in the field of social care, education, healthcare, employment, housing, citizenship, taxes, and information on publicly-available social services. The web platform was implemented in 2008 as part of the broader national e-government strategy launched in 2005. Its overall aims were to: (i) increase efficiency and effectiveness of public service provision; (ii) increase productivity by adapting business processes; (iii) reduce administrative burdens for citizens and businesses; (iv) provide a high quality public service; (v) improve customer satisfaction through better service perception; (vi) achieve a more comprehensive view of user needs and demands.</p> <p>Guichet.lu is a need-driven and outcome-oriented innovation, intended to meet the needs of citizens and businesses in Luxembourg for more effective and efficient access to online public services.</p> | <p>Disruptive:</p> <p>The Guichet.lu initiative offers users - citizens and businesses - a single point of contact for all administrative procedures. The portal re-groups detailed information on administrative processes and allows the user to complete them via e-forms or e-services. An online authentication tool and related electronic signatures on messages or transactions (LuxTrust) allow citizens to safely submit official forms, and a virtual personal account allows them to keep track of all their files, tracing processes, getting feedback on pending procedures, and storing personal information to be used for pre-filling electronic forms. 'Electronic assistants' - who work as online civil servants - guide users through complex procedures involving multiple administrations, without having to know which entity is in charge of the user's problem. A helpline enables users to call or email in their problems. User activities are constantly monitored to improve functionalities based on users' most frequent questions or encountered problems.</p> <p>Concerning ICT-enabled innovation potential, Guichet.lu is a disruptive/transformative innovation, which uses ICT in the form of an e-government platform which is accessed by website and smartphone app to provide access to public services online.</p> |
| Equinoxe - A home alarm system linked to volunteering | |
| <p>Co-creation and collaboration:</p> <p>The Equinox home alarm initiative was launched in 1986 in a socio-economically deprived district of Paris, France. Here, poor housing and service conditions made it increasingly difficult for older people to live at home independently and safely. In order to address this issue, the non-profit association "Equinoxe" ("Equinox" in English) launched a home alarm system to support frail and vulnerable people living at home independently, to enhance their personal safety and quality of life.</p> <p>The main benefit for patients is that they can live autonomously and safely in their homes for as long as possible. Furthermore, the network of volunteers and neighbours also contribute to elderly people's social lives and psychological well-being. The service is very cost-effective: it costs about €2.1 million per year, entirely covered by user fees. Users with low incomes can either be reimbursed by the public health system or by private</p> | <p>Disruptive:</p> <p>Equinox is a French non-profit social enterprise which provides home-care and tele-care services to elderly people. Users of this tele-assistance service are entitled to public reimbursements through the national care attendance allowance scheme (APA). The service is based on a wearable safety-button device which is connected to a 24/7 call centre. It is directly managed from Paris and linked to all the users' other home care services. In addition, the centre is connected to a 'neighbour committee' made up of 3 people (family, friends, or neighbours). who can quickly reach the user in case of need. All the information relating to the patients is safely stored in a centralised database, allowing operators to promptly react in case of emergency. Once a call is received, operators have the option to, first of all, solve the situation if this is possible, without mobilising any other resources. Even when users are not in danger, one of the three</p> |

| | |
|--|--|
| <p>partner insurance funds, or they can benefit from financial support through a solidarity fund managed by Equinox.</p> <p>Equinox is need-driven and outcome-oriented. It aims to meet the care/support needs of older people living independently in their home environments in France. Equinox also uses an open process of co-creation and collaborative innovation networks, as older people (end users) are supported by a collaborative network of informal carers (family, friends, neighbours), call centre staff, and health professionals.</p> | <p>members of the neighbour committee is contacted and asked to check on the user in person and provide physical or psychological assistance in the home. Alternatively, if professional assistance is needed, the operators will alert the most suitable service provider.</p> <p>Equinox is a disruptive innovation, which uses ICT in the form of a remote-controlled home alarm and integrated call centre. This enables informal carers, call centre staff, and health professionals to provide social/health care response services for older people living at home in France.</p> |
| <p align="center">Mentor Buddies - reducing drop-outs in education</p> | |
| <p>'Need driven' and 'Co-creation and collaboration':</p> <p>Mentor Buddies is an initiative delivered by the Humanitas Dutch Association, a third sector organisation with a history of over 60 years in over 80 regions in the Netherlands. It is one of the main national social services and community building organizations in the country. The service has been active since 2011 and aims to provide mentoring to young students from primary, secondary or vocational education who risk dropping school due to various emotional and social problems (from social discomfort caused by loneliness to social disadvantages). The initiative addresses roughly 300 pupils per year in primary, secondary and vocational education in 7 locations, and involves around 150 volunteer mentors who follow a 3 days online training course and have to provide a certificate of good conduct. The initiative is need-driven, and addresses the Dutch Government's plan to keep the number of school drop-outs under 25,000 pupils/ year. It also contributes to creating new collaborations and to implementing innovative service-delivery mechanisms. It depends on the help of young volunteers who can guide young people, as they are perceived to be their peers.</p> | <p>Incremental:</p> <p>The initiative is ICT-enabled in the sense that registration for both mentors and schools happens online on the initiative's platform. This facilitates the process of building a database of available mentors and participants on the course and of monitoring outputs and outcomes. The ICT component of the initiative contributes to a more efficient delivery of services, enabling the process of registration and coupling of the mentors with the mentees. In this sense the initiative contributes to an incremental type of ICT enabled social innovation, where the technical component facilitates the automatization of the actions and facilitates processes. The initiative is integrated at inter-sectoral level, between the public schools and the third sector organization and the community of care providing the mentorship activities.</p> |

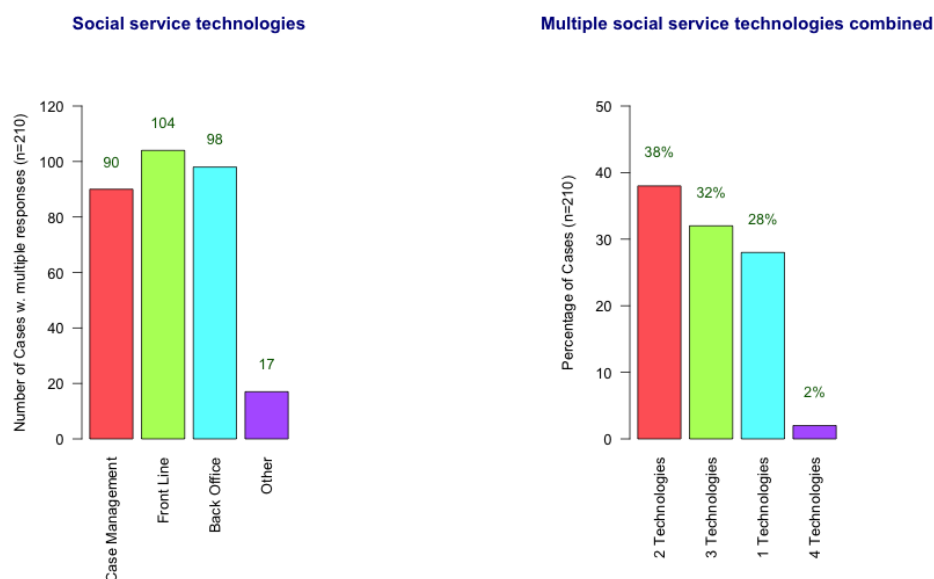
A possible way of 'deepening' the IESI analytical framework, as mentioned in §4.3 may be to look more specifically at the **implementation areas for social service technologies** (i.e. case management, frontline, back office). Figure 33 shows all three technology areas are evenly mentioned, meaning that **no technology area seems to be more effective than any other**. On the contrary, as we see on the right side of the figure, most innovations relied on at least two technology areas and almost one third of the initiatives implemented three social service technologies. On a more abstract level, **this can be taken as an indicator that ICT-enablement of social innovations is likely to require multiple efforts (a) outward facing - creating intuitive, engaging interfaces on the front line and (b) inward facing - making sure that back office capacity keeps up with growing user bases and scaling up operations.**

A case in point for the need to introduce ICT innovations on multiple levels are one-stop shop initiatives for government services, such as the one implemented by the **Italian National Institute for Social Security (INPS)**. Outward facing, one-stop shop initiatives introduce innovations in the user experience by focusing on user needs rather than the internal organisation of processing those needs (**front-line technology**). Additionally, one-stop shops integrate multiple sources of information, in order to provide a holistic response in line with applicants' situations. An integrated view of this kind requires privacy-aware linking of different databases and the establishment of cross-agency and public-private communication channels (**back-end technology**). Finally, this has a substantial impact on the management of cases. Based on the telematization of processes, cases can now be tracked with regards to their status or whether any information is missing, etc. (**case management technology**). See Box 14.

Box 14 - Telematization of services (Italian National Institute for Social Security – INPS)

INPS (Italian National Institute for Social Security), organises the entire portfolio of services (social benefits and pensions) through telematic channels (among others, the e-contact centre). These services cover all of Italy. INPS has developed a completely new service delivery model, allowing one-stop shop access to services and ensuring the continual tracking and monitoring of ongoing requests for services. In particular, the project includes modernization of processes and procedures for the management and delivery of services; redesign of processes and procedures with a view to electronic management, both in the service production; improvement of the monitoring processes / products / services delivery; and online tools to support the new business model and delivery and monitoring organizational performance, also in terms of reputational management. The services offered online are directed at a wide range of users: Italian citizens, immigrants, workers, pensioners, and taxpayers working abroad but residing in Italy. ICTs were crucial for this process, also due to the introduction of processes of IT-demand and IT-governance, and resulted in simplification for the end users and improvements in the welfare benefits rendered by INPS. From January 2011, submission to the Institute of applications for benefits/ services was gradually limited to the following multi-channel IT systems: WEB telematic services accessed directly by citizens via PIN through the portal of the Institute; an integrated contact centre; and intermediaries (institutes) through the online services offered by them.

Figure 33: Types of Social Service Technology used (n=210)



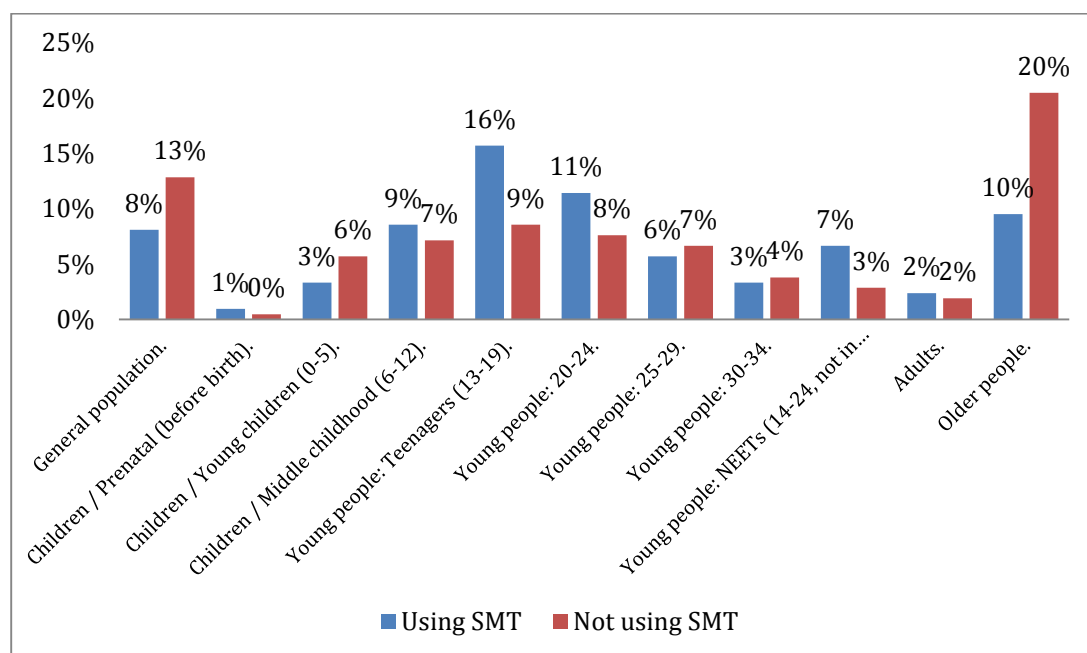
Source: own elaboration.

As mentioned above (see §4.3), an important aspect to be elaborated further, as suggested in the original conceptualisation of IESI (see Misuraca et al., 2015), is the operationalisation of what can be defined as the '**network effect**'. To get an idea of this effect, we could look at **how many initiatives use social media/social networking technologies and how this relates to a specific beneficiary target group (for instance young people) or to the participation of volunteers and informal carers.**

Social networking technologies are used by 91 initiatives, i.e. over the 43% of initiatives in the sample. The remaining 118 initiatives do not use social networking technologies, i.e. 56% of the sample. If we analyse the difference between these two groups according to those variables most strictly related to the network effects, we will see that, in our sample, **the use of social media is strongly correlated to the fact that young people are targeted as beneficiaries and to the involvement of volunteers.**

However, social media does not seem to have a positive effect on the formation of partnerships. Initiatives that use social media have 16 partnerships on average whereas initiatives that do not use social media have about 32 partnerships on average. Of course, this requires further investigation to better understand the implications of the use of technologies like these on specific services provided by ICT-enabled social innovation initiatives and related providers and/or beneficiaries.

Figure 34: Social media / networking technology used vs. target population (n=210)



Source: own elaboration.

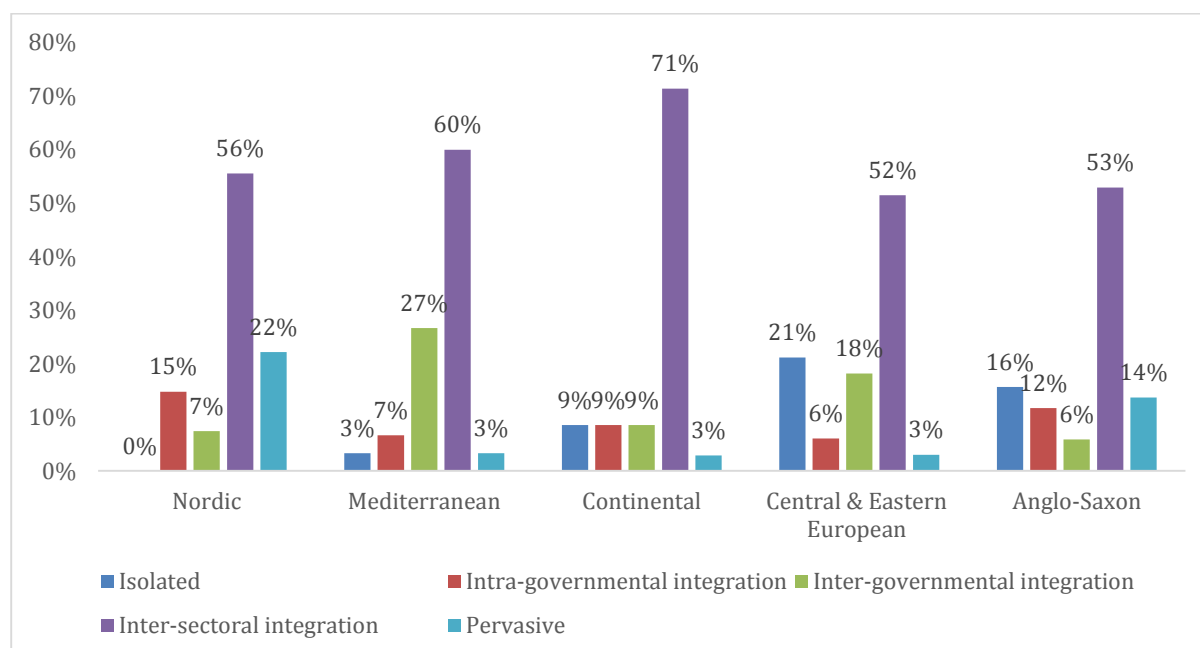
5.3.2 Integration of services: the role of partnerships in different PSSGI

Considering that one of the priorities put forward by the SIP to achieve cost-efficiency, promoting active inclusion and making sure that services are tailored to the different needs citizens might have at crucial moments of their lives, is integration of services across PSSGI and levels of governance. **ICT-enabled social innovation can play a key role in enabling and supporting the integration of services, allowing effective and cost effective collaboration between different stakeholders and with citizens.** The IESI conceptual and analytical framework has been designed to capture these integration aspects by the means of two of the core dimensions of the IESI conceptual framework: **Levels of governance of service integration and Types of service integration** (Misuraca et al., 2015).

If we look at these two dimensions of the IESI framework from the perspective of different welfare systems, as defined in §4.1 (Figure 35) we note that **Nordic countries have the highest levels of governance of service integration.** Initiatives that have pervasive levels of service integration make up over 20% of the sample, and there are no isolated initiatives whatsoever in the sample.

In the Anglo-Saxon countries, where pervasive initiatives are also relatively wide-spread, isolated initiatives are still common, probably due to the more proactive role played by private organisations (both for profit and not-for-profit). Mediterranean and Continental Countries have the highest shares of inter-sectorally integrated initiatives, while levels of integration are lower in Central and Eastern Countries, with over 20% of initiatives being isolated.

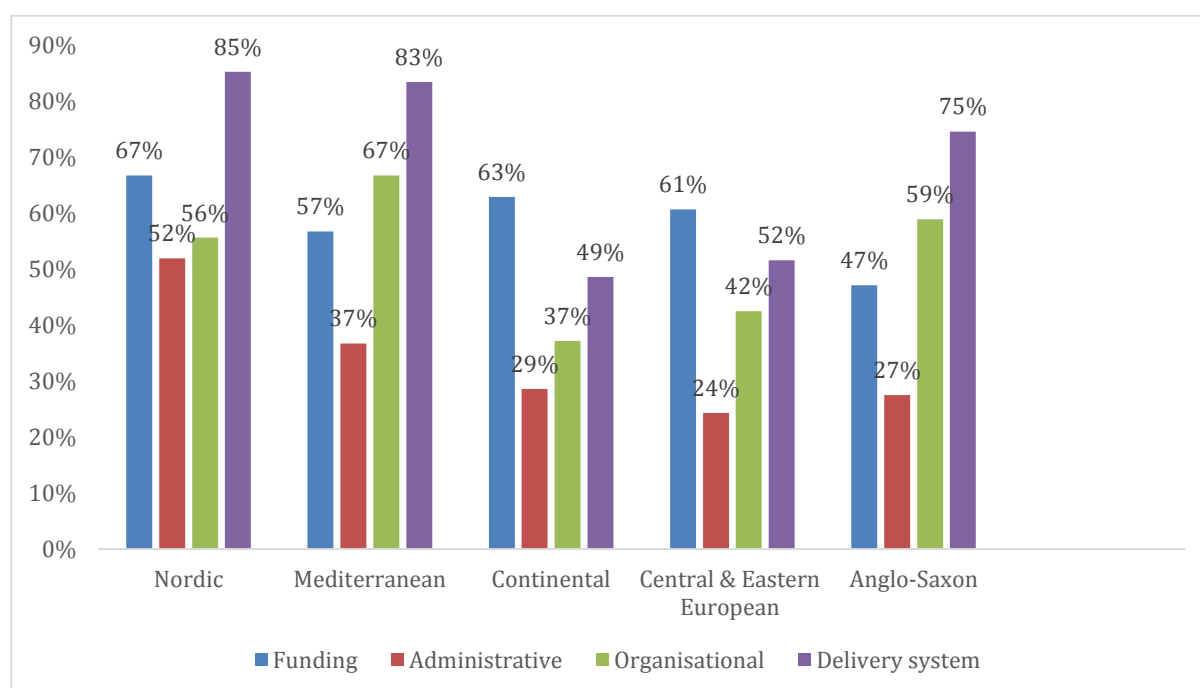
Figure 35: Welfare typologies: Levels of governance of service integration (n=210)



Source: own elaboration

As for types of service integration, integration at the funding level is the most common category in Continental and Central and Eastern welfare systems, while in all the other welfare groups integration happens mostly at delivery level. Organisational integration is also relatively widespread, and particularly in Mediterranean, Anglo-Saxon and Nordic countries. Administrative integration only exceeds 50% in the Nordic countries in the sample (see Figure 36).

Figure 36: Welfare typologies: Types of service integration (n=210)

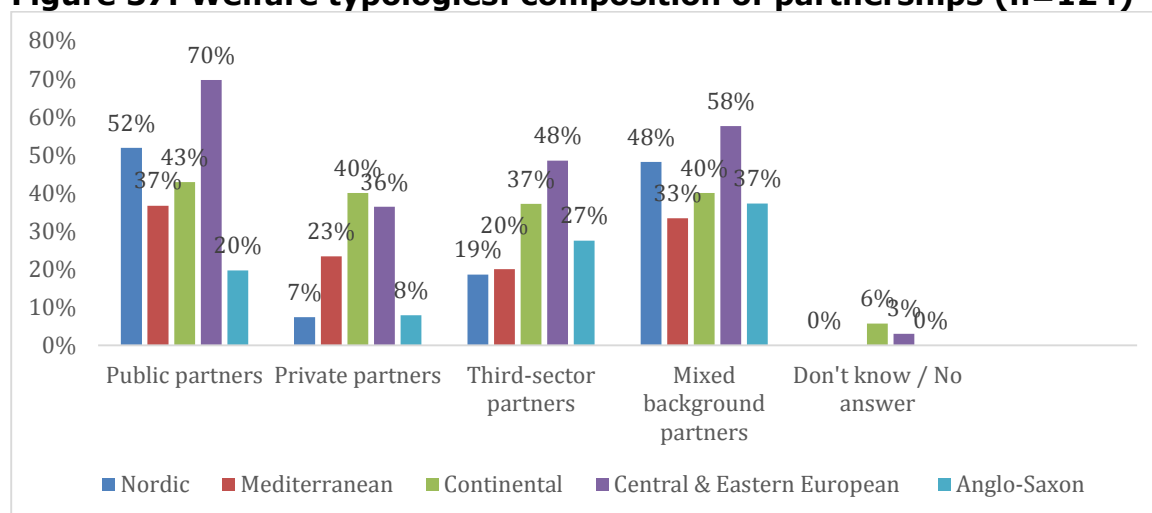


Source: own elaboration.

For the 2015 subset of initiatives, our understanding of integration of services can also be sharpened by looking at the number and typology of partnerships which are in place for each initiative (including the number of intermediaries involved in the social services delivery-chain); and by how many PSSGI the initiatives address at the same time.

As regards partnerships in the different welfare systems, over the 80% of the initiatives across all the 5 welfare clusters have partnerships in place. Thus, although the composition of partnerships varies hugely among various models, it seems that there are high levels of integration between service providers in all welfare systems (see Figure 37).

Figure 37: Welfare typologies: composition of partnerships (n=124)⁷⁹



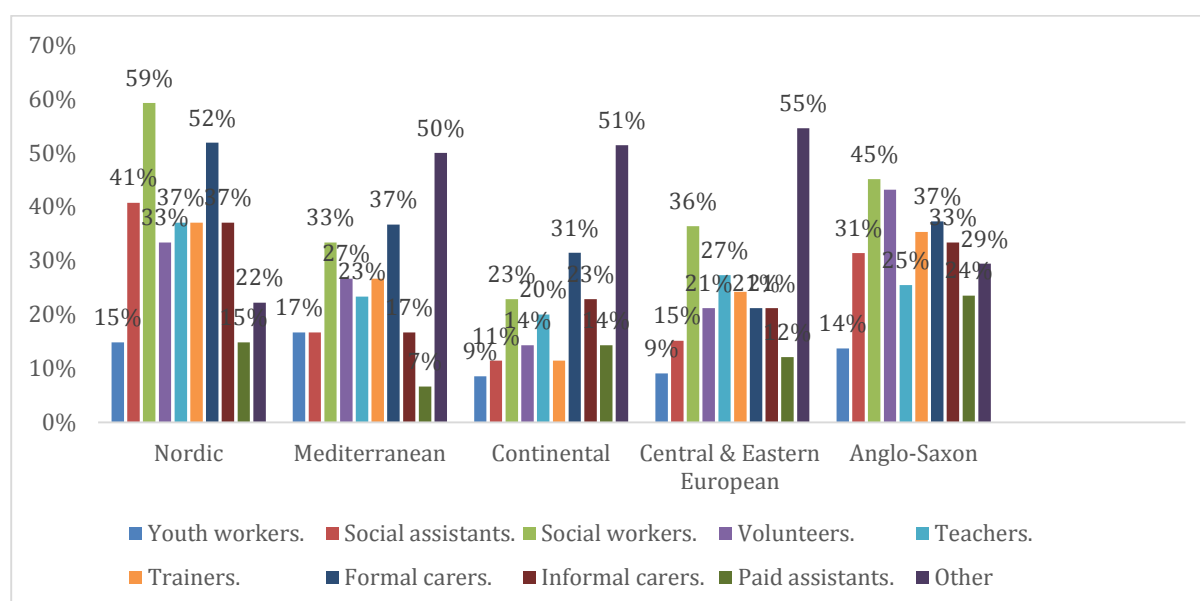
Source: own elaboration.

Most of the initiatives are run by partnerships between public service providers in all the welfare clusters except the Anglo-Saxon. However, while in the Mediterranean and Continental clusters differences between the various typologies of partnerships are limited, in Central & Eastern and Nordic countries the dominant role played by the public sector is more marked. Also, while in Central & Eastern countries there are many partnerships between private organisations and between third sector organisations, in Nordic countries partnership are either public-public or public-private (both not-for-profit and for-profit), which confirms both the leadership of the public sector and its capacity to work in partnership with private and third sector service providers. Surprisingly, private-private partnerships are relatively common in Mediterranean, Central and Eastern and Continental countries, but not in Anglo-Saxon Countries.

One particularly interesting question from the point of view of understanding how ICT-enabled social innovation initiatives are changing the governance dimension of social citizenship (Jenson 2012) concerns the role played by non-public organisations in the delivery of PSSGI. Intermediary actors involved in the delivery of services can be used as a proxy to investigate this dimension (see Figure 38). Social workers and formal carers play a leading role in Nordic and Mediterranean welfare clusters, and formal carers are also the main intermediaries in Continental countries. However, the role of volunteers and informal carers is very significant in all welfare clusters, including the Nordic countries, suggesting a convergence process on this particular feature of the Social Investment paradigm. The work of volunteers and informal carers is particularly important in Anglo-Saxon countries, where they make up 43% and 33% of the intermediaries involved respectively.

⁷⁹ Mixed background partners indicates inter-sectorial partnerships between public-private, private-third sector and/or public-third sector organisations, as well as public-private-third sector partnerships.

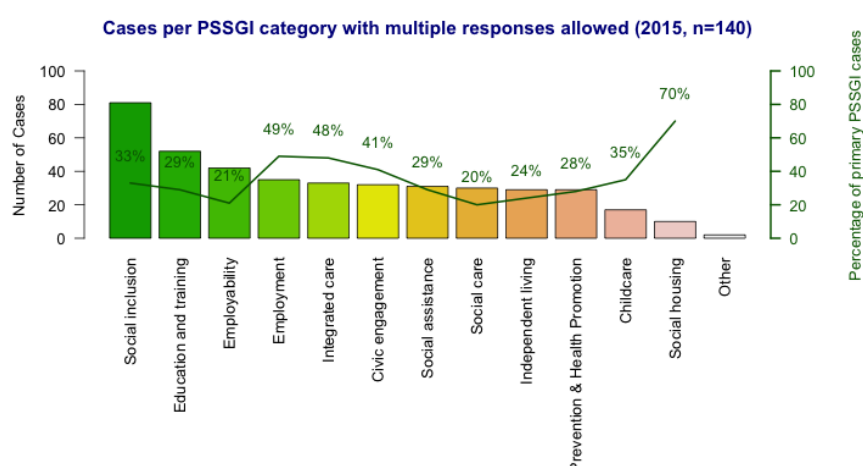
Figure 38: Welfare typologies: intermediaries (n=176)



Source: own elaboration.

The variable '**number of PSSGI the initiatives address at the same time**' has only been considered for the sub-sample of the mapping collected in 2015 (see §5.1). However, **differences between welfare clusters are not substantial**. Initiatives in Nordic and Eastern countries target on average 3 PSSGI at a time, while in Mediterranean countries the average is 2.7, and in Continental and Anglo-Saxon countries it is 2.6. However, **if we correlate the partnerships and the PSSGI** (see Figure 39) **we observe that most partnerships develop in social inclusion areas, followed by education and then social care**. Nonetheless, this ranking needs to be taken with caution since multiple PSSGI areas could be mentioned. In the case of 'social care', for example, only 13% indicated 'social care' as the primary social service area. However, more than half of the cases had actually been labelled as being primarily dedicated to 'integrated care' or 'social assistance'.

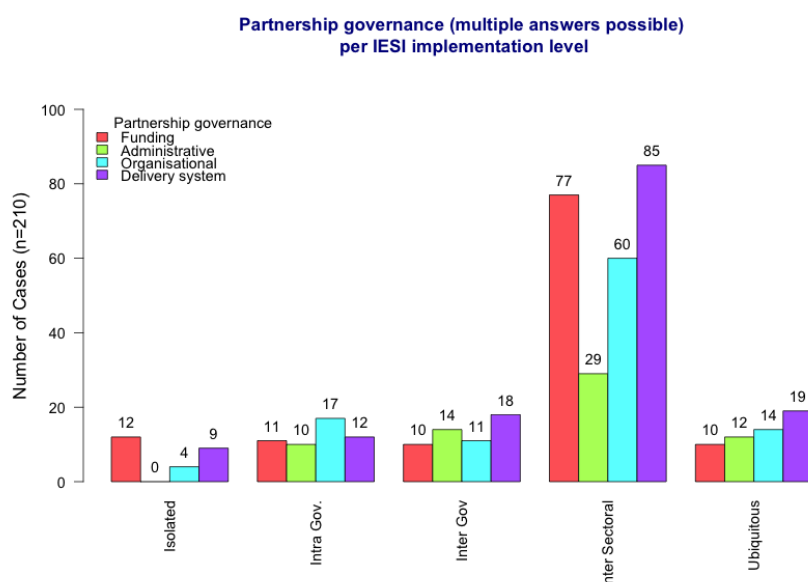
Figure 39: Correlation between partnerships and PSSGIs (n=140)



Source: own elaboration.

Interestingly, as indicated in Figure 40, **the large majority of partnerships happen at the inter-sectoral level**, primarily establishing ways of financing or strengthening outreach and delivery of social services. Notably, in comparison to other partnership levels, **fewer innovations target the administrative side of intersectoral collaboration**.

Figure 40: Partnerships governance vs. scope of initiative (n=140)



Source: own elaboration.

Two examples of inter-sectoral social innovation initiatives which collaborate to deliver the service jointly and also share service administration can illustrate the variety of approaches in this regard (see Box 15).

Box 15 - Examples of ICT-enabled social innovation initiatives with shared governance

| Level of governance of service integration | Social services governance model |
|--|--|
| Intersectoral | <p>Joint delivery and shared administration model:</p> <p>Little Bird⁸⁰ is Germany's first eGovernment solution which uses an interactive process to map out the entire range of administration functions for the allocation of childcare services. Little Bird can be easily integrated into any administrative structure, and it offers substantial interactive features such as navigation, transparency, and control. The requirements of local municipalities throughout German were considered when the service was conceived. Little Bird could easily be customized to meet their needs. It administers the allocation of childcare places in a transparent and effective way, and also allows parents to participate.</p> <p>Elements of Social innovation: Little Bird aims to meet the needs of</p> |

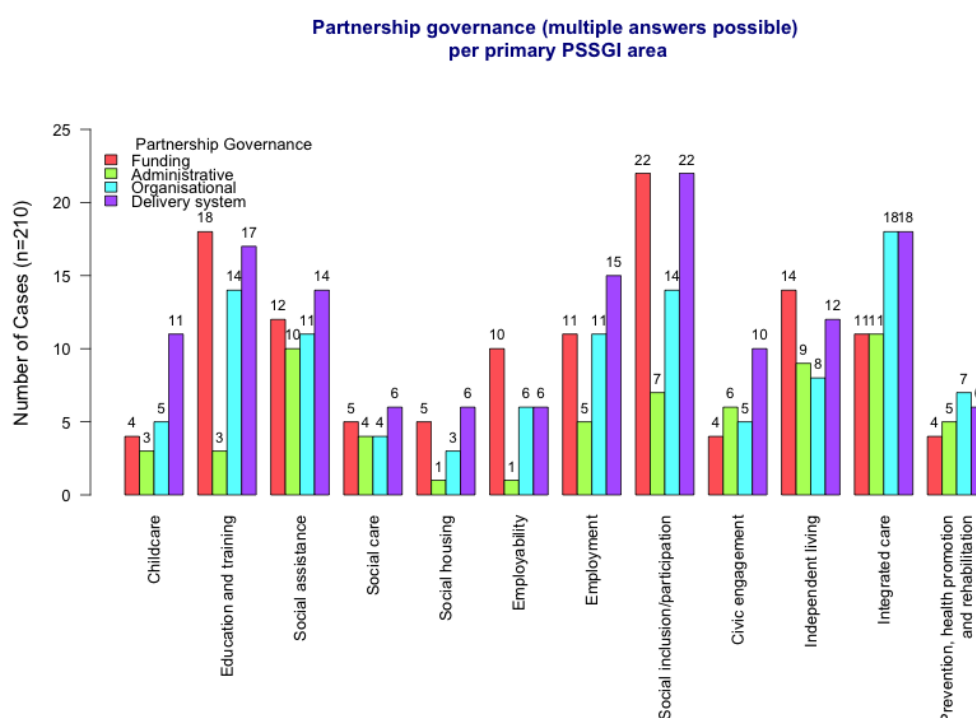
⁸⁰ http://www.epsa-projects.eu/index.php?title=Little_bird_-_Introduction_of_an_interactive_search-,_allocation_and_administrative_procedure_for_child_care_services

| | |
|----------------------|--|
| | <p>families, government, public and private providers by monitoring and allocating transparently kindergarten places to children. The integration of the knowledge from relevant actors and stakeholders has improved the outcome of the service, which can now be integrated into each local setting easily.</p> <p>In terms of ICT innovation, Little Bird is a sustained ICT-enabled social innovation, which improves the organizational and administrative processes of kindergarten place allocation. Providers can plan and monitor their resources on demand. Families get an overview of all childcare services (privately and publicly-owned) and the available child care vacancies. They also have the opportunity to participate in the process interactively. Public administrations get an overview of spare capacity or surplus demand in the childcare sector and can optimize internal administrative processes and administrative costs.</p> <p>Little Bird is integrated on an inter-sectoral level and facilitates collaboration between government, providers and non-profit organizations. The partnership is governed at the administrative and delivery level. Little Bird supports administrative processes and the allocation of kindergarten places, and offers centralized information about each kindergarten place.</p> |
| Intersectoral | <p>Joint administration model:</p> <p>The City of Aarhus initiatives⁸¹ are based on the "recovery approach". The goal is for individuals with psychiatric difficulties to be in control of as many aspects of their lives as possible. By linking up different levels of government clients' individual action plans are made available on the local e-government portal, and project managers are seeking to have the plans added to a national portal. Moreover, the City of Aarhus has enabled clients to develop mobile device apps (to help in areas like monitoring treatment), share them with other service users and form peer support groups. City authorities are also looking at enabling clients to form peer support groups via internet video conferencing. The City of Aarhus has entered into a number of agreements with several organizations. GalloJob provides jobs for users of psychiatric services, Tøssekassen produces TV programs about mental illnesses and the Mental Health Day/Sindets Dag event is organized in collaboration between the City of Aarhus and the organizations.</p> <p>This initiative is need-driven/outcome-oriented. Outcomes are intended to meet the needs of society or specific groups in society in a long lasting way. This is achieved through an open process of co-creation/collaborative innovation networks. It is a sustained/organisational innovation: it uses ICTs to support, facilitate or complement existing efforts and processes to improve organisational mechanisms of services provision. The initiative is an inter-sectoral integration, which provides collaboration between government and service delivery providers in private or non-for-profit sectors.</p> |

⁸¹ <https://www.aarhus.dk/~media/Dokumenter/Borgmesterens-Afdeling/Kommunikation/UK-hjemmeside/Activity-Areas/English-Summary-Master-Plan-recovery.pdf>

Figure 41 below shows the distribution of 'Partnership governance models' across PSGGI areas. Partnerships that engage in the delivery of social services are relatively dominant and they make up a substantial share within each social service area. Funding and administration of social services are the least prominent areas for shared social service provision.

Figure 41: Distribution of 'Partnership governance models' across PSGGI areas (n=140)



Source: own elaboration.

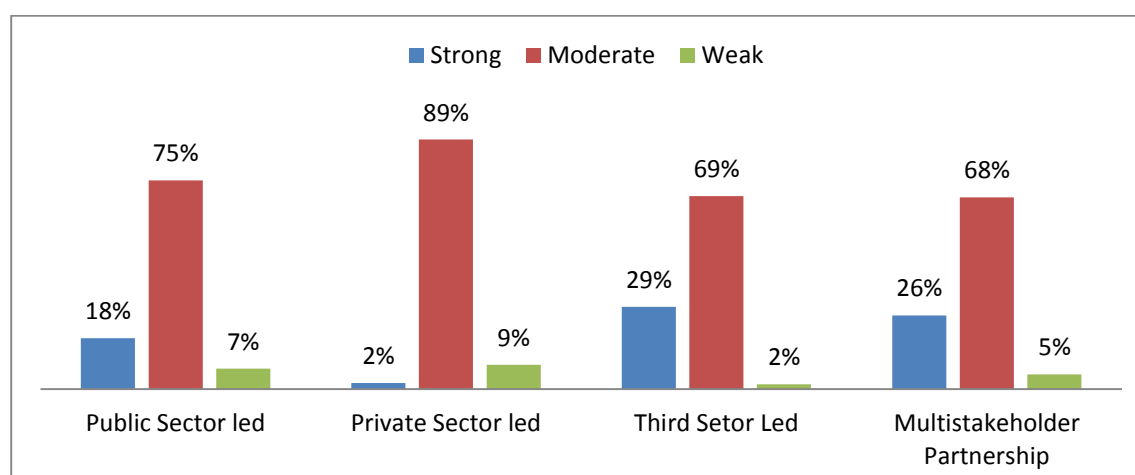
5.3.3 Strength of ICT-enabled social innovation and evidence of impact achieved

Two further variables introduced in the 2015 mapping exercise as a result of the review of first years' methodology can help us to approximate the '**level of maturity**' in terms of:

- **the overall level of ICT-enabled social innovation potential; and**
- **strength of evidence on the policy-relevant outcomes as regards methodological rigour.**

First of all, it is worth noting that **the strength of ICT-enabled social innovation and the sector of the initiative-leader indicate an interesting interaction.** In the sub-sample, under analysis (n=140), there are 55 public-led initiatives, 8 private sector-led initiatives, 58 third sector-led initiatives and 19 multi-stakeholder partnerships. The sample of private sector-led initiatives is too narrow to make any assumptions. However, if we look at the strength of ICT-enabled social innovation for each sub-group, it seems that **third sector-led initiatives and multi-stakeholder partnerships do indeed have higher levels of innovation.**

Figure 42: Levels of ICT-enabled social innovation by sector (n=140)



Source: own elaboration

Finally, with regard to the **evidence of impact achieved**,⁸² it can be seen that, in general terms, initiatives which carry out small scale evaluations, often performed by the initiatives' owners, are classified as 'weak' in the strength of evidence category. 'Moderate' indicates the presence of more ambitious impact evaluation frameworks, which apply a systemic methodology to assess outcomes achieved. 'Strong' refers to rigorous scientific evaluation, usually done by external / independent evaluators. The variable is important not only because it can be used as a proxy for the maturity of the initiatives, but also because it denotes different approaches to social services provision. **The presence of sound evaluations of social outcomes achieved is typically associated with the social investment paradigm**, which according to Jenson (2012) uses evidence on outcomes to change the governance dimension of social citizenship towards a more collaborative, efficient and personalised model, as depicted in Figure 43 below.

Figure 43: The governance dimension of social citizenship

| | Keynesian perspective | Neoliberal perspective | Social investment perspective |
|--|--|--|--|
| Time horizon in governance | Present, so as to avoid the past | Present, so as not to hobble the future | Future, which requires action in the present |
| Preferred forms of governance | Weberian Hierarchical/ bureaucratic | Corporate models plus privatisation | Networks and partnerships |
| Ideal form of intergovernmental relations | State-building via conditionality | Unilateralism and downloading | Asymmetrical collaboration via results-based coordination |
| Focus for evaluation of success | Inputs (spending) | Bottom line (costs) | Outcomes (cost-benefit) |
| Evidence base for policy | Cross-sectional data identifying social 'problems' | Time-series data illustrating growing deficits | Longitudinal data identifying and tracking social investment |

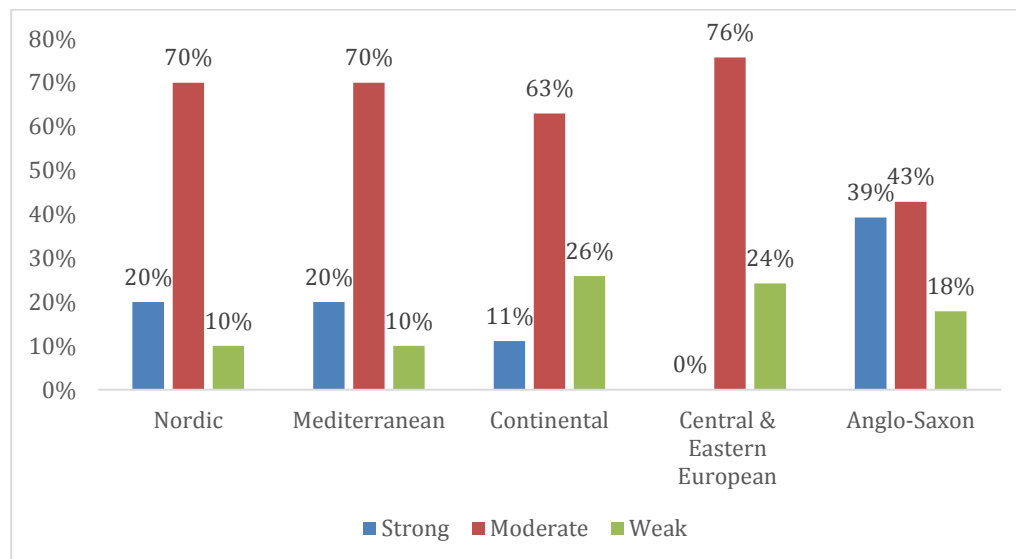
⁸² As reminded in §5.1 a crucial condition to enter the IESI mapping repository is the existence of evidence of impact. However, with a view of including also relatively young and experimental initiatives which could indeed have a remarkable potential in terms of ICT-enabled social innovation, certain flexibility on the evaluation frameworks was applied, so to include also initiatives categorised as: Promising and Emerging, in addition to the one defined as 'Proven'.

| | | | |
|--|---|---|---|
| | | | opportunities and outcomes |
| Expectation of community sector | An organised expression of social needs and solidarity, meriting public support as part of the institutions of representation | Part of the private sector, often representing a 'special interest'. Might be harnessed by government to respond to pressing social needs | An organised expression of social needs and solidarity that requires public investment to build its capacity for partnerships |
| Expectation of private sector | Wealth-creating sector | Model for wealth creation and regulation | Wealth-creating partner and model for regulation |

Source: adapted from Jensen, 2012.

In the IESI sample, initiatives originating in the **Anglo-Saxon countries present the most rigorous impact assessments**. Nearly 40% of these initiatives show strong evidence of outcomes achieved (see Figure 44). Initiatives from **Nordic and Mediterranean countries are also relatively well placed as regards evidence**, probably also due to the high number of examples which have been ongoing for more than 5 years. As pointed out in Chapter 3, **evidence of impact is harder to find in Central and Eastern countries**, where ICT-enabled social innovation initiatives tend to have been implemented more recently than in other welfare groups. Surprisingly, **Continental countries have a very high share of initiatives with weak impact assessments**, and only 3 initiatives whose social outcomes have been evaluated robustly.

Figure 44: Welfare typologies: Strength of evidence (n=140)

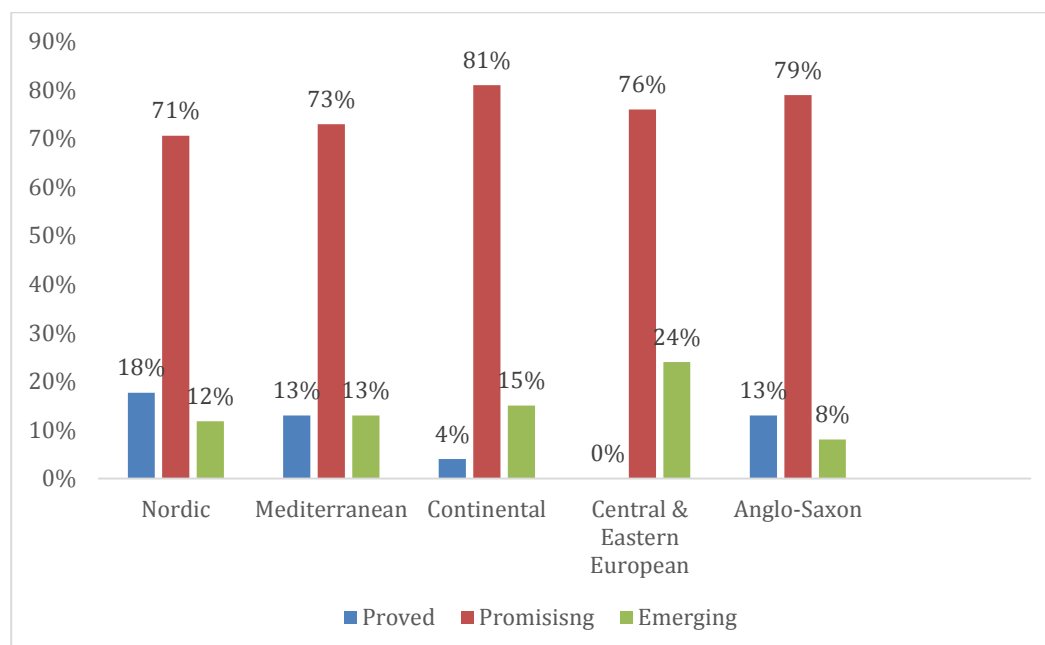


Source: own elaboration.

One further interesting question concerns the link between strength of evidence of impact achieved and strength of ICT-enabled social innovation. A possible working hypothesis in this regard is that strong evidence frameworks are instrumental in sustaining outcome-based partnerships, which in turn can foster ICT-enabled social innovation. Of course this does not mean that there is a cause-effect relation among the two variables, or that initiatives with a strong evidence-base are also better examples of ICT-enabled social innovation (or vice versa). Looking at these two variables together is however crucial to understanding which initiatives may be worth replicating or transferring between or across countries, given both their level of ICT-enabled social innovation and the documented processes and results. There are many examples of this kind of initiative in the Continental, Central and Eastern and Nordic countries, where the

distribution of initiatives for the two variables is basically the same. In all the other cases, however, the two variables do not seem to be closely interrelated. In the Mediterranean, Continental and Anglo-Saxon countries, the number of 'proven' initiatives, which present strong evidence of impact achieved and high levels of ICT-enabled social innovation potential is lower than expected, particularly in the case of the Anglo-Saxon countries (see Figure 45).

Figure 45: Welfare typologies: Strength of innovation (n=124)



Source: own elaboration.

The main difference between the Anglo-Saxon and the other welfare clusters mainly consists of higher numbers of isolated initiatives in the Anglo-Saxon group, and the less important role played by the public sector in promoting partnerships. **It might be, therefore, that a proactive role played by the public sector in catalysing relevant public, private and third sector partners could be the main driver of ICT-enabled social innovation. Neither private nor third sector partners could achieve this innovation on their own, or with limited involvement from mainstream public service providers.** This would also explain the better performance of Nordic countries when it comes to adopting a social investment perspective (European Commission 2013b) (see also §4.1.1). It also supports the position of Jenson (2012) that the responsibility mix in social citizenship regimes is well-balanced: a universalistic public sector invests in human capital, while collaborative stakeholders from the third- and private sectors contribute with innovations along with the state and citizens.

6. Thematic Analyses

This chapter presents the findings of specific thematic analyses conducted on sub-samples of the IESI Mapping which address selected topics deemed particularly important (see Chapter 5). The aim of the analyses is to explore more in depth: 1) the role of social enterprises in social services delivery through ICT-enabled social innovation initiatives which promote social investment; 2) the implications of ICT-enabled social innovation initiatives which promote social investment through integrated approaches to the delivery of social services for the active inclusion of young people; and 3) active and healthy ageing and long-term care for older people, particularly as regards disease prevention, health promotion and rehabilitation.

The analysis of the initiatives identified in both the 2014 and 2015 IESI mapping exercises (see Chapter 5) confirms the important role played by ICT-enabled social innovation. It promotes social investment to support the modernisation of social protection systems in the EU in general and the analysis also highlighted three domains where it can be crucial: 1. Helping third sector organisations to support social service delivery, particularly the emerging **social enterprise** sector; 2. **Active inclusion of young people**; and 3. **Prevention, health promotion and rehabilitation** in the area of active and healthy ageing and long-term care for older people. These are explored in §6.1, 6.2 and 6.3.

More specifically, as already identified in the IESI Exploratory Study conducted for JRC-IPTS on the role of ICT-enabled social innovation for the active inclusion of young people (Cullen, J., et al., 2015),⁸³ there is a strong and natural link between active inclusion of young people and ICT-enabled social innovation. This is demonstrated by the high number of initiatives that address this topic across different Member States and PSSGI. At the same time, the analysis of the IESI database showed that the role played by social enterprises in promoting ICT-enabled social innovation across Europe was particularly important. Moreover, this specific topic has been analysed in detail as part of a support study which explored the role of social enterprise-driven ICT-enabled social innovation.⁸⁴ Finally, the update of the review of the state of the art in active and healthy ageing and long-term care for older people (§3.3), has shown that the theme of (disease-) prevention, health promotion and rehabilitation is a good representative of the social investment approach. For this reason, and also because it was not included in the IESI mapping in 2014, it receives special attention in this report. However, the thematic analysis included in §6.3 does not focus on this theme only. It also analyses the entire sub-sample associated with the area of active and healthy ageing and long-term care for older people.⁸⁵

This chapter therefore looks at the database of mapped ICT-enabled social innovation initiatives from a thematic viewpoint and focuses on three crucial aspects which emerged from the mapping. Its objective is to better understand how ICT-enabled social innovation can support social policy reforms that aim specifically to modernise the EU Member States' social protection systems.

⁸³ JRC Technical Report, 2015, Edited by Misuraca G., et al., available at: <https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/exploring-role-ict-enabled-social-innovation-active-inclusion-young-people>

⁸⁴ This support study has been commissioned by JRC-IPTS to Fiorenza Lipparini. In addition to conducting an analysis of the state of the art in the field, the study collected an inventory of relevant initiatives from which a sample has been selected and analysed as part of the IESI mapping 2015.

⁸⁵ In doing so it is a core component of the part of this Report which makes up the IESI project deliverables D1.1.2 foreseen according to the Administrative Arrangement between JRC-IPTS and DG EMPL and representing the Mapping Annual Reports focusing on active and healthy ageing and long term care for older people.

Clearly, this is a preliminary analysis. It will be complemented with the results of the third round of mapping in 2016 and specific findings that will emerge from the complementary research activities conducted as part of WP2 and WP3 of the IESI project: i.e. in-depth case studies and the development of a methodological approach for assessing social and economic impacts of ICT-enabled social innovation initiatives promoting social investment.

6.1 The role of social enterprise-driven ICT-enabled social innovation initiatives promoting social investment in support of social services

6.1.1 Introduction

Around 30% of the initiatives documented in the IESI repository are ICT-enabled social innovations where social enterprises play a key role in the design, funding or delivery of personal social services of general public interest (PSSGI). This is not by chance. It is in line with the social investment approach⁸⁶ and the fact that social enterprises represented about the 15% of all the stakeholders involved in the delivery of the 70 ICT-enabled social innovation initiatives documented in the first year of IESI Mapping. Particular attention was focused on this emerging sector⁸⁷ by the IESI research in the second year of the project.⁸⁸

Before taking a closer look at the initiatives, a few words on the definition of social enterprise adopted in the IESI project are required. Scholars all across Europe often claim that there is no such a thing as an EU social enterprise. Definitions – and typologies of organisations behind definitions – vary hugely across the 28 Member States. Our starting point was the operational definition used in the recent 'Map of social enterprises and their eco-systems in Europe' (European Commission 2014) promoted by the Commission as part of the Social Business Initiative.

However, where national legislation and traditions justified it⁸⁹, we also looked at initiatives where not all the operational criteria set-out by the European Commission (2014) were met. So in Denmark for instance, where according to recent estimates there are around 300 social enterprises, 2/3 of which are Work Integration Social Enterprises (WISEs), we looked at private organisations offering public services, such as private schools funded by governments to provide education to mentally-disabled children. In Germany, there is no legislation or national definition of social enterprise but welfare organisations play a key role in delivering public health and social services. Here, we

⁸⁶ The social investment approach, as theorised for instance by (Esping-Andersen 2002) and (Krings 2014), looks at the ecosystem of intermediary groups (including third sector organisations and private businesses) as 'an organised expression of social needs and solidarity that requires public investment to build its capacity for partnerships' (Jenson 2012). From this point of view, the potential contribution of social enterprises, which conjugate a commercial approach with a strong presence and a deep knowledge of the community in which they operate, seems particularly promising.

⁸⁷ On the definition debate and the emergence of the social enterprise sector see e.g. (Borzaga & Defourny 2001), (Defourny & Nyssens 2006), (Galera & Borzaga 2009), (Borzaga & Galera 2014), (Baxi 2010), (Choi & Majumdar 2014).

⁸⁸ This section is partly based on the findings of a support study on 'ICT-enabled social innovation initiatives promoting social investment and led by social enterprises' (Lipparini & Phillips 2015) commissioned by the JRC-IPTS. The study gathered an inventory of 105 initiatives where social enterprises play a key role, out of which 58 were selected to become part of the IESI Mapping and further documented using the IESI template for data collection. They have then been included in the IESI Mapped repository 2015. The initial inventory has been further enriched with 6 relevant initiatives from the 2014 mapping exercise thus making the entire inventory on ICT-enabled social innovation initiatives promoting social investment and led by social enterprises amounting to 111 initiatives. The mapped sub-sample analysed instead counts 63 initiatives.

⁸⁹ See (Lipparini & Phillips 2015), Ch. 2.2.

looked at entrepreneurial welfare organisations. In Cyprus, only 7 organisations which met the EU operational criteria could be identified by Commission experts. Here, we searched for initiatives implemented by 'entrepreneurial' third sector organisations and 'mission-oriented' businesses. Also, in most Central and Eastern European Member States the public debate on social entrepreneurship is relatively recent.

In all cases, three main criteria were respected:

1) Entrepreneurial dimension: organisations were considered only if they were engaged in continuous economic activity and were deriving a significant amount of their revenues from trading. To give an example, we considered Age UK, a charity by Law, to be a social enterprise, given that 70% of its revenues are from trade, which allows it to also fund non-profitable activities.

2) Social dimension: organisations were considered only if they explicitly pursued a social objective, which was not compromised by the pursuit of economic profit. Because it was not always possible to access the articles of association or statutes of the social enterprises surveyed, we mainly looked at how inputs, outputs and outcomes were measured and monitored with respect to social objectives.

3) Governance dimension: As most social enterprises across Europe do not have legally-binding governance models, we looked at transparency, user involvement, and the ability to partner with public, private and third sector organisations to achieve broader social impact as proxies.

6.1.2 Analysis of ICT-enabled social innovation initiatives driven by social enterprises promoting social investment to support social services

Distribution and areas of activity of ICT-enabled social innovation initiatives where social enterprises play a key role

The deployment of ICT-enabled social innovation initiatives which promote social investment and where social enterprises play a key role is uneven across European countries. It depends mainly on 3 factors:

- Levels of ICT infrastructure deployment and of access and use of ICTs (and particularly e-services) among the public sector and the general population;
- Presence of social enterprises and third sector organisations with a tradition of collaboration with the public sector to deliver social services; and
- Levels of public social spending and service delivery models.

The IESI social enterprises subset under analysis contains 63 initiatives from 24 EU countries⁹⁰. Most of these (around 35% of the sample) are based in the UK. This is hardly surprising, considering that social enterprises and social innovation have been widely supported by UK central governments for over a decade. Social enterprises have thus benefited from conducive policy, and regulatory, capacity-building and funding measures⁹¹. In addition, relatively high levels of public social spending and collaboration

⁹⁰ In spite of the high levels of ICT literacy and infrastructure in the country, it wasn't possible to find any initiative meeting the ICT and policy relevance criteria in Luxembourg. This can be explained by the fact that there are less than 300 'de facto' social enterprises in Luxembourg at the moment, mostly WISE or social economy organisations with some trade activities. As for Greece, Poland and Slovenia, in spite of the limited presence of social enterprises and scarce ICT deployment levels, it was possible to find relevant initiatives for the IESI inventory, however, evidence of policy outcomes achieved was too weak to grant access to the mapping repository.

⁹¹ Policy measures and plans implemented by the UK government to support social enterprises between 2010 and 2015 are listed here: <https://www.gov.uk/government/publications/2010-to-2015-government-policy-social-enterprise>, see also the UK Country report of the Commission's mapping of the EU social enterprise landscape:

with the private sector to deliver public services, together with well-developed ICTs and e-government infrastructure and very high levels of access and use of the Internet among the population, contribute to making this country a fertile ground for ICT-enabled social innovation in general.

We look compare the distribution of the social enterprise initiatives with initiatives where social enterprises do not play a primary role (see Figure 46 and 47), according to welfare typology. We note that Anglo-Saxon countries have more initiatives of this kind, while Nordic and Continental countries have fewer. This is in line with literature findings⁹², according to which the presence of social enterprises reflects only partially the 5 typologies of the adjusted Esping-Andersen model.

Figure 46: Social Enterprises Subset: welfare typologies (n= 53)

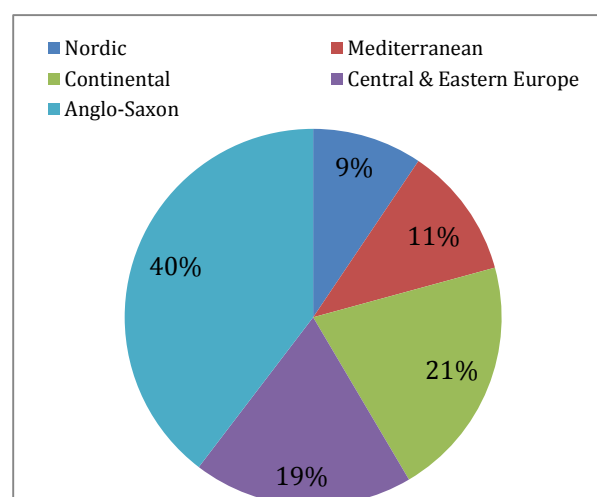
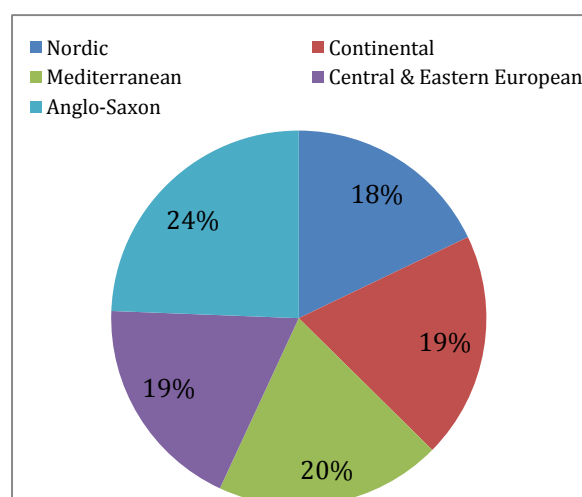


Figure 47: Non-Social Enterprises Subset: welfare typologies (n=147)



Source: own elaboration.

In **Nordic countries**, a pervasive public welfare system and a long tradition of collaboration with third sector organisations for the delivery of public services have hampered the development of a strong social enterprise sector. However, third sector organisations are highly professionalised and often act as 'de facto' social enterprises, providing specialised services to targeted groups of beneficiaries (for instance the mentally and physically disabled or, increasingly, long-term unemployed people and immigrants). Both Denmark and Sweden are looking with increasing interest at social enterprises and in both countries a policy framework and targeted programmes and institutions are being put in place. Finland, on the other hand, has consciously chosen to equalize social enterprises and for-profit businesses.

Central and Eastern countries represent another relatively homogeneous group. As in Nordic countries, social enterprises are a relatively new phenomenon. Though EU input (and funding) have contributed to focusing policy makers' attention, most public-funded initiatives either target traditional organisations such as WISEs or aim to build capacity and infrastructure as a precondition to the establishment of a social enterprise sector. The absence of a strong third sector, which could partner with the public sector for the

<http://ec.europa.eu/social/keyDocuments.jsp?advSearchKey=socentcntryrepts&mode=advancedSubmit&langId=en&policyArea=&type=0&country=0&year=0&orderBy=docOrder> and (Lipparini and al. 2015), Appendix 3 - The role of government in catalysing impact investing: the UK case.

⁹² See (Borzaga & Defourny 2001); (Kumlin 2005); (Levander 2010); (Morel et al. 2012); (Sepulveda 2014); (Borzaga & Galera 2014)(Kumlin 2005; Levander 2010; Borzaga & Defourny 2001; Borzaga & Galera 2014); (Sirovatka 2014).

delivery of public services, is further threatening the development of social enterprises. The relatively high share of initiatives in Eastern countries is therefore more representative of the researchers' efforts than of the real availability of relevant initiatives in this welfare cluster.

In both the **Central** and **Southern** welfare models, there are wide differences between countries. In Germany, Belgium and Austria the situation is quite similar to that of Denmark and Sweden: a traditionally pervasive welfare state has a long tradition of collaboration with a much professionalised third sector to deliver public services. Social enterprises are a new phenomenon, which governments are looking at with greater attention, as a way of dealing with the need for fiscal consolidation and the creation of semi-markets for the provision of services of general interest. In the Netherlands, the situation is similar to that of Germany, Belgium and Austria. However, the influence of the UK social enterprise movement and a lively start-up environment have further accelerated the development of social enterprises. As a result, the Netherlands is the second most represented country after the UK in our sample.

In Luxembourg, public social spending is considerably lower than in other Central European countries (around 23% of GDP), and the social enterprise sector appears to be somewhat underdeveloped. There are between 200 and 300 de facto social enterprises, mainly active in child care, elderly care and social care services. The topic has acquired momentum in the national policy agenda, and a new legislative form and impact funds are about to be launched.

Italy, Spain and Portugal have traditionally very strong social economy sectors (they have particularly strong cooperative traditions) coupled with relatively low levels of public investment in welfare services. This is especially the case in services targeting families and people with atypical careers. These factors have created fertile ground for the development of very entrepreneurial, not-for-profit organisations, many of which have become proper social enterprises.

The tight relationship with the public sector (which is the main contractor for most social enterprises) weakened the sector's economic stability during the financial crisis. This is partly true for the French social enterprise sector also, which, like the 3 Mediterranean countries, is mostly emerging from the traditional social economy sector. However, higher levels of public spending and a more universalistic approach to the provision of welfare services have contributed to making the sector more resilient to the crisis.

Malta, Cyprus and Greece represent a further subgroup, in between Mediterranean and Eastern countries. Social enterprises are a relatively new concept, largely sustained by international organisations (such as UNDP and USAID) and the EU, which offer support including funding. Local third sector organisations are relatively under-developed, and heavily reliant on public funding, however, initiatives to build capacity within the third sector and to support social enterprises are ongoing. In Greece, for instance, the Social Economy Institute is actively collaborating with international and local stakeholders to build a conducive environment where social enterprises can thrive.

In the **Anglo-Saxon group**, we have already seen how the UK represents a unique model. In Ireland, the UK influence and a traditionally strong social economy sector have contributed to shaping the emerging social enterprise sector, which is halfway between the Continental and the Anglo-Saxon model. Though the link between the traditional social economy and the public sector is strong, the awareness of the specificity of the social enterprise model and the effort to achieve full economic sustainability and independence from the public sector is above average.

In terms of **PSSGI**, the sample appears to be well balanced. Most initiatives fall into those areas where a strong social mission can be matched with the generation of revenues, i.e. in the **Education and Training, Employability-Employment and Active and Healthy Ageing**.

Figure 48: Social Enterprises Subset: PSSGIs (n=57)

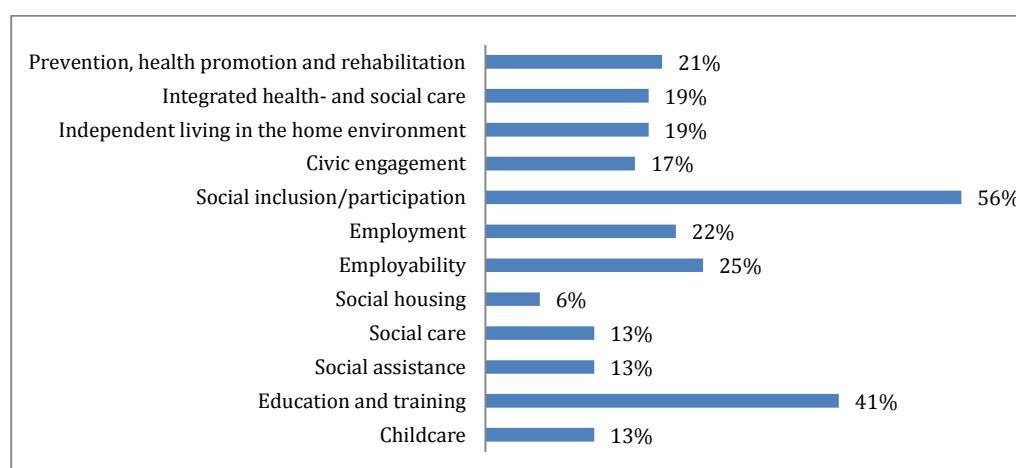
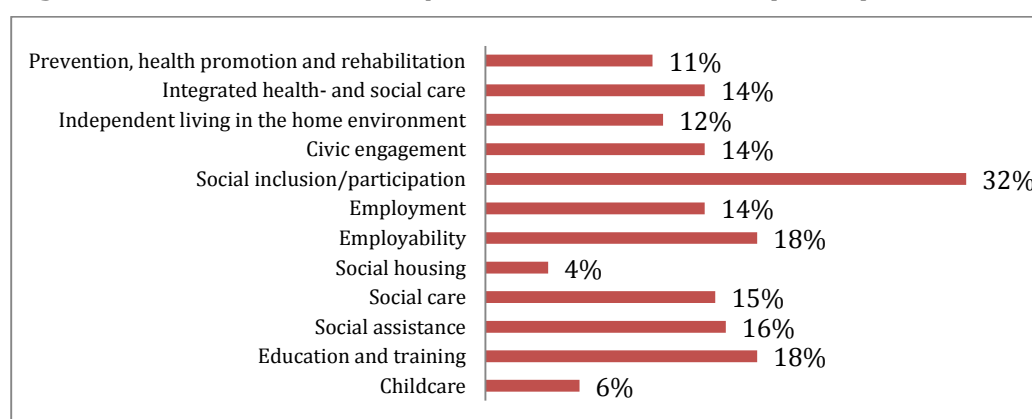


Figure 49: Non-Social Enterprises Subset: PSSGIs (n=83)



Source: own elaboration.

Not surprisingly, social enterprises tend to specialise in areas which are not sufficiently covered by the public sector and that can, at least potentially, generate some income. Services targeting disadvantaged groups, and particularly work-integration and education and training for the mentally and physically disabled are wide-spread all across Europe. In most cases, they are implemented in a coordinated and complimentary fashion with the public sector.

Social care and social assistance, which are traditional areas of activity for third sector organisations, are for this very reason slightly less characteristic of social enterprises, even though it is possible to find several relevant initiatives, and particularly at system level.

However, it was possible to identify a relatively high number of initiatives in the civic engagement field. In most cases, these initiatives do not generate revenues, and are implemented thanks to dedicated projects funded externally or through revenues generated through trading activities. Active and healthy ageing remains a very important area of activity: 30% of the initiatives in the social enterprises subset target elderly people, and higher levels of activity in the prevention, health promotion and rehabilitation, the independent living and the integrated health and social care domains compared to the non-social enterprises sector.

Finally in terms of deployment, unexpectedly, most of the initiatives operate at national level (44% of the sample), 32% at local or regional level, and a further 24% conduct multi-country operations (compared to 10% in the non-social enterprises sample).

However, the relative scarcity of local and regional initiatives – which are normally the primary ground of operation for third sector organisations and social enterprises – is in fact illusory. Most social enterprises in our sample apply the same model in different locations across a country. So for instance, the same Vocational Education and Training (VET) programme, *AspIT*, is used to teach autistic pupils by a cooperating network of 10 schools in Denmark. Similarly, the Italian National Cancer Association (ANT) uses its *VITAEVER* management system and model of care to improve homecare for the terminally sick in 10 Italian regions through 20 local units. These initiatives are classified as 'national' in the IESI database, but are in fact 'aggregates' of local initiatives. In a few cases, the ability to operate nationally is due to the fact that the service is integrated with government operations at national level, this is the case of the *Dementia Friends* initiative in the UK, which was implemented nationally by the Alzheimer's Society UK as part of the Prime Minister's 'Dementia Challenge' Initiative. Again, however, initiatives are then implemented at local level by local teams. Initiatives can be 'scaled-up' using two main approaches: (i) a 'bottom-up' approach in which a successful local initiative is replicated in more locations; and (ii) a 'top-down' approach whereby an initiative is designed to be scaled up to regional, national, or international levels after the apparent success of a pilot initiative to test the viability of the initiative locally before rolling it out on a larger scale.

Importantly, in most cases, the ability to scale-up services nationally and even internationally, achieving in this way economy of scale, increased sustainability and social impact, derives from the use of ICTs. So for instance E-learning services like 3D environments for vocational learning and development, which were developed by UK social enterprise *Hao2* for young people with autism and other complex needs, can be accessed from anywhere in the country. The same applies to the Austrian platform *Superhands*, which offers expert advice and peer support to young carers in an increasing number of countries.

In conclusion, apart from a slight overrepresentation of initiatives from Eastern Countries, our sample seems to closely reflect the distribution and role of social enterprises across European Countries. As we will see in the next paragraph, it was possible to find small-scale –often very innovative and effective – ICT-enabled social innovation initiatives involving social enterprises nearly everywhere in Europe. However, large-scale, high-impact initiatives where ICT-enabled social innovation acts as a real game-changer tend to be concentrated in Nordic, Continental and Anglo-Saxon countries. Here, levels of social spending are above the EU average, and high levels of ICT infrastructure and skills among the population and governments are coupled with a long tradition of collaboration between the public and a vibrant and very entrepreneurial third sector.

Social enterprises and the IESI conceptual framework

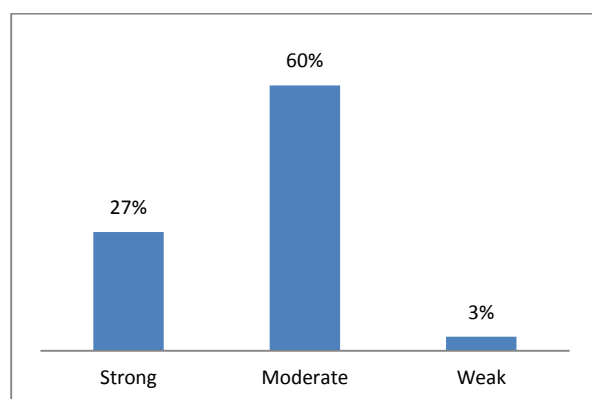
If we compare the social enterprises sub-sample with the other initiatives included in the IESI mapped repository, we see that it presents remarkably higher levels of both social innovation⁹³ and ICT-enabled innovation,⁹⁴ which translate into higher ICT-enabled social innovation potential.⁹⁵

⁹³ The data for the social enterprise sub-sample against the non- social enterprise sub-sample is as follows: Technical/Incremental innovation: 0% vs 5%; Sustained/organisational innovation: 13% vs 33%; Disruptive innovation: 68% vs 48%; Radical/Transformative innovation: 19% vs 13%.

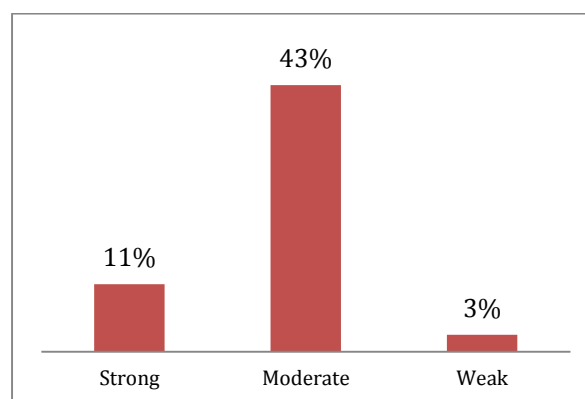
⁹⁴ The data for the social enterprise sub-sample against the non- social enterprise sub-sample is as follows: Need-driven/outcome oriented: 100% vs 95%; Open process of co-creation/collaboration: 79% vs 43%; Fundamental change in stakeholder relationships: 32% vs 36%; Public value allocation: 52% vs 34%.

⁹⁵ Data on Strength of ICT enabled social innovation are available for the 2015 dataset only, the study will be updated in 2016, when the sub-sets will be entirely harmonised.

**Figure 50: Social Enterprises
Subset: Strenght of IESI (n=57)**



**Figure 51: Non - Social Enterprises:
Strenght of IESI (n=83)**



Source: own elaboration.

Higher levels of ICT-enabled social innovation are achieved due to social enterprises' capacity to involve users and stakeholders (thanks to their governance structures) and identify their needs (thanks also to their need to stay on the market and their deep roots in local communities)⁹⁶. As clearly emerges from the IESI operationalised definition, social innovation is more about collaboration and contamination between sectors (and stakeholders) than about sectors *per se*. In this sense, the fact that initiatives in the social enterprises sub-sample have higher shares of inter-sectorally integrated initiatives (73% vs 53% in the non-social enterprise sub-sample) with a higher average of multi-sectoral partnerships in place (76% of partnerships between partners with different backgrounds vs 26% in the non-social enterprises sub-sample), is probably the main reason behind the higher levels of ICT-enabled social innovation achieved. In addition, initiatives where social enterprises play a key role tend to involve a higher number of partnerships (on average 33 partnerships per initiative against 22 in the non-social enterprises sub-sample) and to address at the same time more PSSGIs areas (2.8 per initiative against 2.6).

Looking at **typologies of ICTs used**⁹⁷, there are no substantial differences between the two sub-samples except for the fact that social enterprises tend to use social inclusion

⁹⁶ Having deep roots in the local social ecosystem, social enterprises (like third sector organisations) can help local and central governments to create public value by conveying citizens' needs as well as by acting as 'warrantors' for the public sector, enhancing citizens' trust and willingness to engage with it. Social enterprises' privileged relationship with the territories in which they operate has been analysed by several scholars as a distinctive competitive advantage of the third sector over both the public and the private sector, and recently by Depedri (in Baxi 2010). The capacity of third sector organisations and social enterprises to identify emerging or unmet needs (and possible ways to address them) is facilitated by their governance systems, implying frequent interaction and continuous involvement of a wide range of stakeholders, including service users. The unique peculiarity of social enterprises compared to third sector organisations consist in their capacity to turn this participative governance model into an effective production process (Baxi 2010). On the relationship between social enterprise and social innovation see for instance: (Munshi 2010; Choi & Majumdar 2014; Roy et al. 2015; Borzaga & Galera 2014; Phillips et al. 2015).

⁹⁷ The relationship between social enterprises and ICTs has not been studied systematically so far, but is increasingly gaining the attention of the academic community. Research works can be roughly divided in two groups: on one hand, scholars have looked at how the use of ICTs can contribute to make social enterprises more effective (and cost effective) both at management level and by allowing them to engage with a broader audience of potential customers and stakeholders (especially volunteers and collaborators working in remote) (See for instance (Harris, J., Harrison, C., Ruskin, P., & Walker 2008) and (Richards et al. 2010). On

and social networking technologies more often and have slightly lower access to case-management tools⁹⁸. Our hypothesis to explain why initiatives where social enterprises have a key role present higher levels of ICT-enabled innovation potential lies again in the fact that **these initiatives tend to develop around complex multi-stakeholder partnerships where users play a very active role. ICT therefore becomes fundamental to provide effective collaboration mechanisms. The HMP Peterborough Social Impact Bond** offers a good example from this point of view.

Box 16 - HMP Peterborough Social Impact Bond (PSIB)

PSIB was the first SIB ever to be launched. £5m external investment was raised to reduce re-offending rates by prisoners on short sentences when they left Peterborough Prison. The bond was structured by Social Finance, which created a social impact partnership and the One Service to manage front-line organisations (the St Giles Trust, Ormiston, SOVA, YMCA, and Mind). 17 investors raised 5 million pounds, to be repaid by the Ministry of Justice via the Big Lottery Fund if it was successful. Investors anticipate the sum necessary to implement the programme and get paid only if outcomes agreed with the government are achieved. The return on investment is proportional to the impact achieved: in this case, the goal is to reduce by at least 10% the number of reconvictions over 12 months compared to a control group, or if 7.2% of the 3,000 SIB ex-offenders are not reconvicted. Payments are capped at £8 million: reduction in court, police and prison costs stemming from decreased re-conviction rates would cover this amount. The One Service was set up to coordinate, through the PSIB, services provided by various charities which offer support to released prisoners. It also works with public authorities to address multiple social issues which are treated at the same time, for example: housing, drug and alcohol addictions, employment, to peer-support, social inclusion, and support for ex-offenders' families. The first phase of the scheme did not reduce the number of reconvictions sufficiently to trigger payments to investors: it achieved 8.4% reductions in reoffending rates and not the 10% target. However, investors will get their money back in 2016 if there is an average fall in reconvictions of at least 7.5% across the first and second groups. Furthermore, the initiative still presents high levels of social innovation. For example, multiple stakeholders and beneficiaries are involved in the design, delivery and evaluation of results. In addition, the financial model makes it possible to maximize the value of public investment by linking it to the achievement of positive social outcomes and shifting financial risk from the state to private investors, thereby creating public value. In terms of ICT innovation the initiative falls in the sustained category. However, the use of an effective shared performance management system has been instrumental in the success of the initiative. It has allowed all the parties involved in the SIB (including investors and public authorities) to effectively communicate and share information, thus they can promptly identify and overcome bottlenecks. Data dashboards are used to visualise causal relationships between services delivered and results achieved. For instance, they can show how meeting prisoners at the gates when they come out of prison affects

the other hand, a few studies have focussed on how ICT are used by social enterprises to achieve greater social impact (see for instance Ashoka 2014) and Ratten 2013). At the crossroad between the 2 groups, the most comprehensive study published so far 'Social E-Enterprise: Value Creation through ICT' (Torres-Coronas et al. 2013) collects a series of articles which look both at the potential of ICTs to increase social enterprises' economic and social performance and at concrete cases in which this has happened.

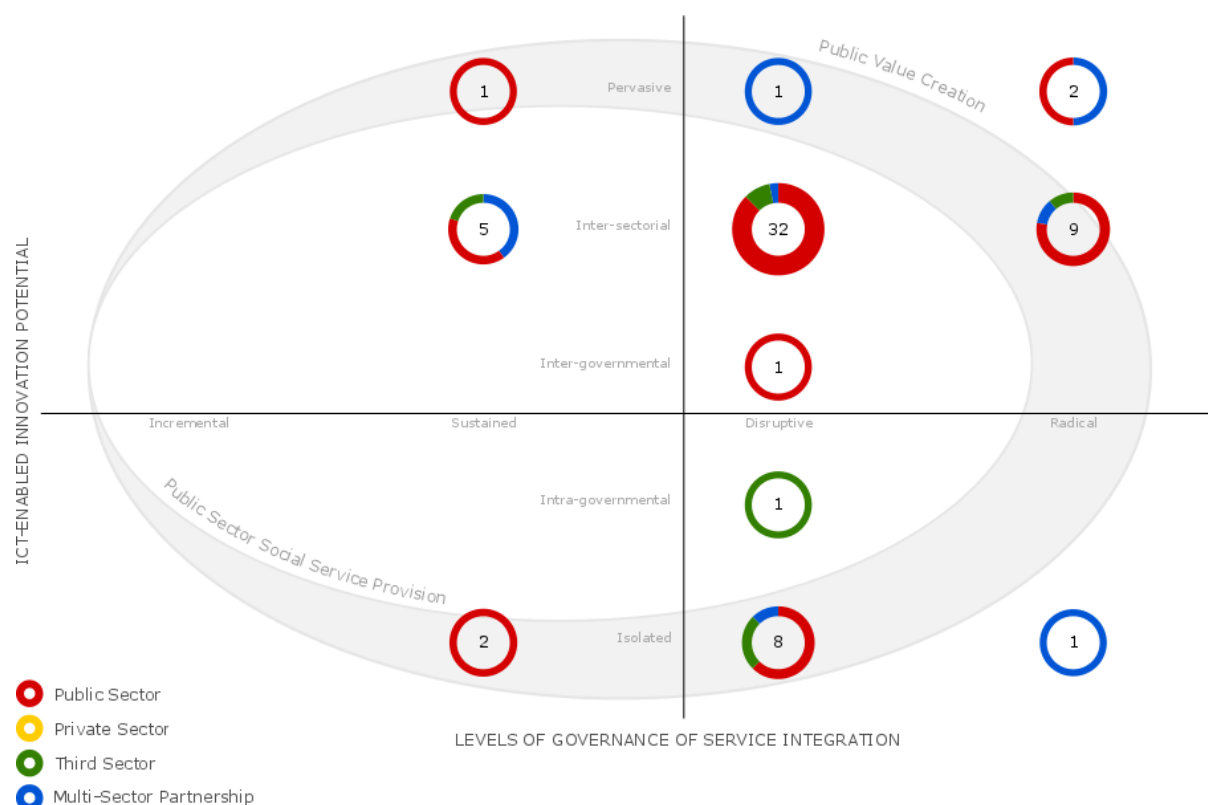
⁹⁸ ICTs to promote social and active participation and social media are by far the most popular technologies, used in around 60% of the initiatives in our sample (against the 38% in the non-social enterprises sample), confirming the important role played by ICTs in reinforcing inclusion, communication, campaigning, networking and engagement practices. At the same time, web-platforms and social media play an increasingly important role in facilitating beneficiaries' empowerment, allowing easier communication between carers and beneficiaries as well as peer support.

reoffending rates. They can also make month-on-month comparisons of case workers' activities. Furthermore, the adoption of the shared management system has radically changed the approach of social workers to their daily work. It has allow them to experience how collecting data in the field can lead to a better understanding of the different issues that arise, which leads in turn to the development of effective countermeasures. A series of trends were spotted and addressed, such as specific areas of crime young people were returning to, reasons why clients lost interest and stopped being engaged with case workers, which communication systems suited clients' needs best and so on. PSIB is inter-sectorally integrated, with different departments and levels of government involved at funding and delivery levels, and private and third sector organisations collaborating at both delivery, administrative and organisational levels.

6.1.3 Key results

We have positioned the 63 ICT-enabled social innovation initiatives driven by social enterprises which promote social investment to support social services in our sub-sample on the **IESI Knowledge Map**, see Figure 52. At first glance, we can confirm many of the statements made in the previous section, with respect to the strong ICT-enabled social innovation potential and integration of services.

Figure 52: IESI Knowledge Map of ICT-enabled Social Enterprises driven initiatives



Source: own elaboration.

Most of the initiatives (43 altogether) fall into the disruptive ICT-enabled innovation potential category. This is matched by various levels of governance of service integration, though the majority (32) are situated at inter-sectoral level.

11 initiatives in total have radical ICT-enabled innovation potential, mainly in conjunction with inter-sectoral level of governance (9), and, in 2 cases, pervasive.

Only a few initiatives (8 in total) have sustained ICT-enabled innovation potential, associated in 5 cases again with the inter-sectoral level of governance of service integration. Only 2 initiatives were registered as isolated and 1 as pervasive⁹⁹.

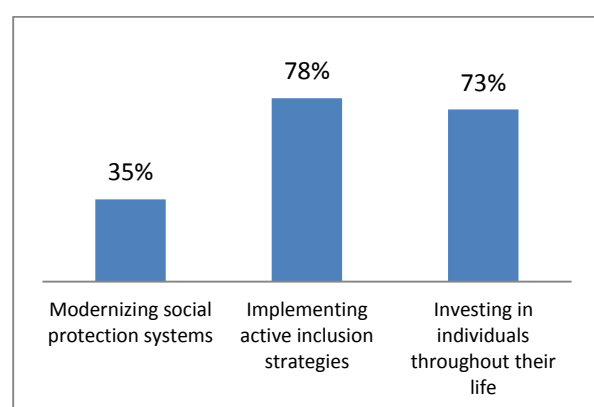
This analysis seems to reflect the general perception and findings emerging from literature that the combination of ICT-enabled innovation and social innovation can adjust technology to the needs of single people and local contexts. This can in turn enable effective outcomes-based collaboration between different stakeholders and with users. It is certainly one of the most important traits of the particular approach to ICT-enabled social innovation put forward by social enterprises. It is also one of the aspects which contributes the most to making the contribution of social enterprises' (and more generally third sector organisations) to public sector-led initiatives so important.

This is broadly reflected also by the policy objectives and beneficiaries groups addressed by ICT-enabled social innovation initiatives where social enterprises play a key role, and is discussed next.¹⁰⁰

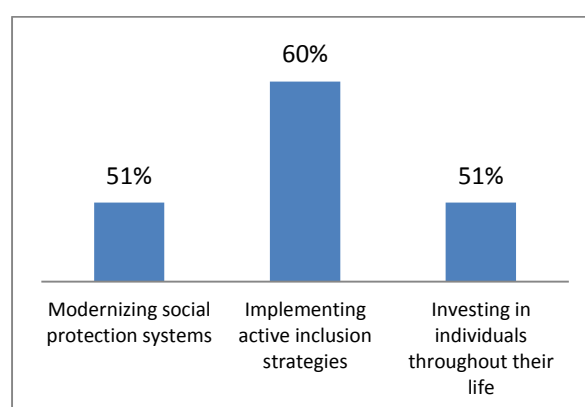
Policy relevance of ICT-enabled social innovation initiatives driven by social enterprises

If we look at policy priorities addressed by the initiatives of the sub-sample under analysis, we can immediately see that differences between non-social enterprise-led (e.g. public sector) initiatives and initiatives where social enterprises play a key role are remarkable (see Figures 53 and 54).

**Figure 53: Social Enterprises
Subset: SIP priorities (n=63)**



**Figure 54: Non Social Enterprises
Subset: SIP priorities (n=147)**



Source: own elaboration.

Not surprisingly **nearly 80% of the initiatives in the social enterprises sub-sample are engaged in promoting the active inclusion of their beneficiaries**. This is fundamental for the sector, and beyond mission statements, active involvement of beneficiaries and employees is a statutory requirement and deeply rooted in the traditions of many social enterprises. **The third strand of the SIP, which focuses on providing adequate services throughout citizens' lives and at critical moments, is also a very widespread policy priority in our sample (mainly for initiatives that target elderly people, children (and their parents), young people and the unemployed).** The relatively high number of initiatives where social enterprises play a

⁹⁹ See also Figures 15, 62, and 74 for comparative analysis across thematic sectors.

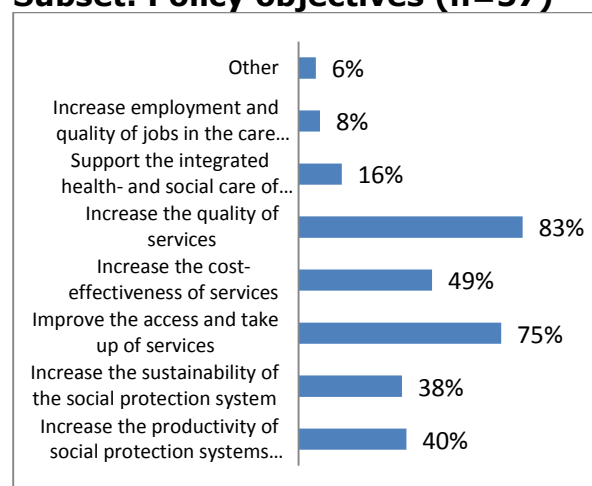
¹⁰⁰ On the other side, the important role played by the public sector in sustaining social enterprises is particularly evident from Figure 52. As already highlighted in § 5.3.3, there seems to be a remarkably strong correlation between the proactive role of the public sector and the presence of initiatives presenting high levels of ICT enabled social innovation and integration, and this is even more so for those initiatives where social enterprises play a key role.

key role in prevention, health promotion and rehabilitation also contributes to explaining the high share of initiatives which target this policy priority. **The relative scarcity of initiatives in the 1st strand is mainly due to the fact that most of them are too small-scale to contribute to this priority.** However, in terms of operationalised objectives, the situation is different, and many initiatives contribute to increasing services' productivity and cost-effectiveness (see Figures 55 and 56). For those social enterprises which achieve economic sustainability by offering social services, cost-effectiveness coupled with high-quality services is essential to gain public contracts and to sell services which are often more expensive than similar services offered by both the public and the private sector.

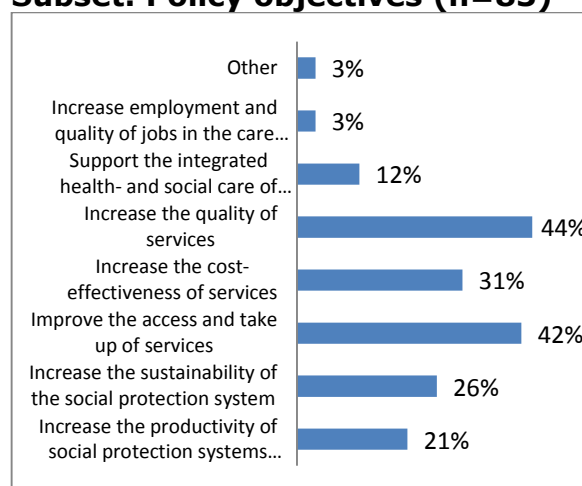
Another aspect which should be mentioned as regards cost-effectiveness is the **capacity of many social enterprises to attract volunteer work.** If we look at intermediaries delivering the initiatives, we find that volunteers play a key role in 43% of the cases, compared to 23% in the non-social enterprises sub-sample, (where volunteer work is usually brought in through partnerships with traditional third sector organisations). Also from this point of view, integration between public services and social enterprises can contribute to enhancing not only the quality and reach of public services, but also their cost-effectiveness.

The most striking trend in the 'operationalised SIP objectives from the service provider perspective' concerns the priority given to increasing access and take-up of services by initiatives where social enterprises play a key role. This is only partly explained by social enterprises' need to ensure a client base for services. It has more to do with the high levels of social innovation presented by these initiatives and with the fact that social enterprises often specialise in providing services to 'hard to reach' targeted groups of beneficiaries. These include people who have very specific needs, which are not addressed by mainstream public services in most Member States (for instance, education and employment measures targeting autistic people) or people who are not entitled to public benefits, but still need a particular service (often the case for elderly people living at home, and also for young people, unemployed people who are not entitled to unemployment benefits - such as young people or mothers entering/re-entering the labour market, immigrants and, increasingly, the in-work poor).

**Figure 55: Social Enterprises
Subset: Policy objectives (n=57)**



**Figure 56: Non Social Enterprises
Subset: Policy objectives (n=83)**



Source: own elaboration.

In conclusion, from the analysis of the sub-sample investigated, initiatives where social enterprises play a key role have higher levels of both ICTs and social innovation than initiatives which do not involve social enterprises. This is mainly due to the deeper integration of services achieved and to the higher number and diversity of partnerships in place. In addition, social enterprises play an important role in facilitating access and

take-up of services, particularly by hard-to-reach groups of beneficiaries. Finally, thanks to their capacity to mobilise volunteer work and their entrepreneurial approach, social enterprises also contribute to the objective of making our social protection systems more cost effective.

One point shared by many large-scale, high-impact initiatives is their capacity to effectively organise large numbers of stakeholders with very different backgrounds, expertise and roles in order to achieve shared social outcomes. This is made possible by the combined use of social innovation and ICTs. Social innovation is necessary to bring all the stakeholders to the table and to identify the entrenched social issues that are hampering inclusive growth in a community. The stakeholders can then establish agreed social outcomes and a systemic approach to achieving them. ICTs are necessary to build implementable models, facilitating collaboration and information sharing between the stakeholders involved. From this point of view, encouraging collaboration between the public sector and social enterprises for the delivery of public services, and promoting the creation of an ecosystem where social enterprises can thrive, is certainly instrumental to taking advantage of ICT-enabled social innovation for the modernisation of EU social protection systems and the adoption of a social investment approach.

6.2 Analysis of ICT-enabled social innovation for the active inclusion of young people

6.2.1 Introduction

The economic downturn continues to affect the economy of the EU 28 Member States and, European citizens of all working ages and skills have growing concerns about accessing and remaining in the European labour market. **Unemployment has reached 25% in some Member States and cross-country differences within the EU are even more striking for youth unemployment rates** (from less than 7% in the Netherlands, Luxembourg or Germany to more than 22% in Spain and Greece) (Eurostat, August 2015). In addition, young people are faced with temporary contracts, unpaid internships and lack of opportunities after finishing their education, making them more likely to be excluded from the labour market.

Moreover, the fact that so many of the younger generation are unemployed causes difficulties in maintaining a level of knowledge suitable for the labour market through practice or additional training due to a shortage of investment capability. As a result, this human capital rapidly becomes obsolescent. At the same time, there is also strong evidence that **the combination of high school drop-out rates and failures to complete third level education are playing a significant role in increasing the level of poverty and social exclusion of the younger generation.**

In several EU Member States, more than 12% of young Europeans between 15 and 24 fall into the category 'Not in Employment, Education or Training' (NEET), which amounts to some 8 million people (Eurofound 2012). This situation is even more dramatic from a long-term perspective, since it creates a precondition of potential permanent un-employability for this segment of the European population. Further to this, NEET status often clashes with creating stable family groups, which can in turn translate into long-term mental and physical problems (Eurofound 2012; Eurofound 2015).

This situation clearly affects the long-term social stability of the overall EU28 and of each Member State. In addition, a contraction of the birth rates as a consequence of the lack of stable family groups could lead to an increase in social costs due to the large numbers of potentially long-term unemployed people. These risks and the dramatic lack of employment are also serious concerns in many EU rural areas where young people find it more difficult to enter the labour market, and find jobs and/or proper training opportunities, compared to young people living in urban or metropolitan areas.

In this context, research has clearly shown that **those who suffer multiple disadvantages such as unemployment, low income and poor educational attainment are also often digitally excluded, that is, they lack meaningful engagement with technology** (Ellen J. Helsper 2008). The deeper their social disadvantage, the less likely they are to have access to or be able to effectively use a computer, the Internet and other forms of technology such as mobile phones and digital TV for instrumental purposes, such as finding a job or building their social networks. This form of technological exclusion can exacerbate existing social disadvantages (Valkenburg & Peter 2007)¹⁰¹

Focusing on employment issues, there is evidence¹⁰² that alongside these risks there are considerable opportunities. ICTs can support excluded groups in ways that enhance their access to and use of information and services. They enable self-help and reduce dependency on the state. They can give individuals access to broader contacts and job opportunities, and help establish more effective job matching opportunities and/or motivate people to access the local services to which they are entitled. ICTs provide new channels and pathways which can help them to communicate more effectively and interactively, increase the opportunities for social inclusiveness and extend social and peer networks for those who are isolated. As well as empowering people at risk of social exclusion in their access to services, **ICTs can enable service transformation and help address the problems faced by socially-excluded people in a more efficient and effective way.** This is in line with the underlying aim of social investment which especially in the field of youth inclusion, is to move away from the view that welfare expenditure is a burden for the state. Actually, it can be seen as an opportunity in the socio-economic and human capital development of society. **The key aim is to empower young people and future citizens to help themselves and in this way to limit their needs for assistance from society.** Employment, education and training, social inclusion, civic engagement, even active and healthy ageing are only the expected outcomes of sane and up-to-date social policy reforms.¹⁰³ This perspective is also in line with the objectives of the *European 2020 Strategy for Growth* and it identifies youth as a key target group for policy.

6.2.2 Analysis of ICT-enabled social innovation initiatives which promote social investment to support the active inclusion of young people

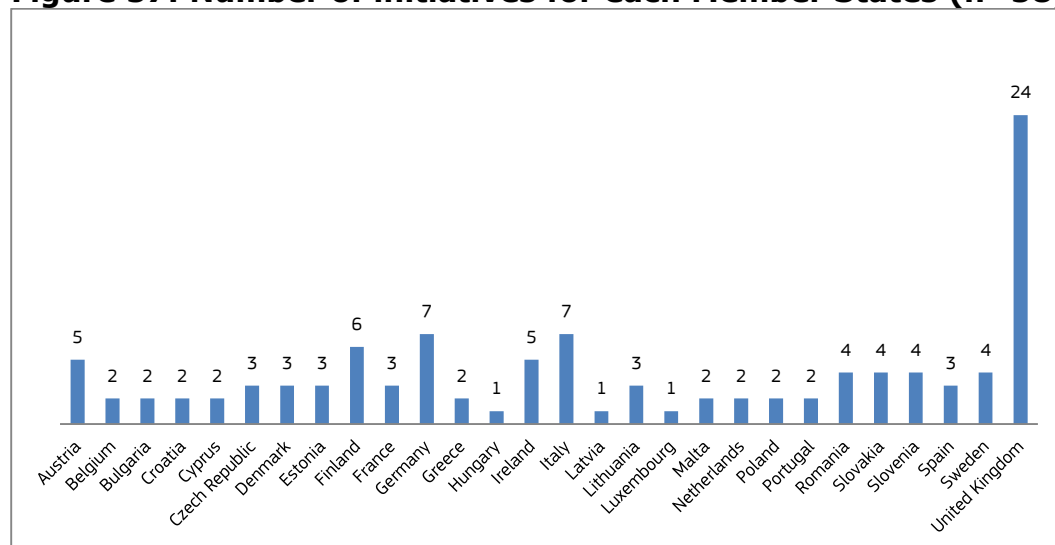
About 30% of the initiatives documented in the IESI mapped repository are ICT-enabled social innovations which address the need to strengthen young people's skills and capacities and help them participate fully in employment and social life. There are **63 initiatives of the ICT-enabled social innovations mapped** in 2014 and 2015 and contained in the sub-sample under analysis in this section. In terms of **geographical coverage, these initiatives** are unevenly distributed among EU Member States. There is a high concentration of cases in the UK (similarly to the whole of the sample). In the sub-sample all EU Member States are represented with at least one initiative:

¹⁰¹ (Valkenburg & Peter 2007) suggest there is a clear empirical evidence that: 'the way young people use the Internet is influenced by socio-economic and cognitive resources'. Young people with better education and a higher socio-economic status are more likely to use Internet as an information medium compared with socially disadvantaged ones, and there is clear evidence that for the latter the usage of Internet is more frequently done for entertainment. Moreover, studies such as those of (Eynon & Malmberg 2011) demonstrate that online search skills, self-learning and networks of support are important for understanding uptake of online information seeking (e.g. seeking for employment opportunities as well as training offer), underline once more how the digital divide can reduce job seeking opportunities as well as the mid-long term social life of the young at risk exclusion.

¹⁰² See for instance (Hargittai, E. and Hinnant 2008) and (Eynon, R. and Helsper 2011).

¹⁰³ This type of discourse is what (Giddens 1979) and (Hemerijck 2013) identified as a transformation from the passive, underclass approach to social policies towards a more transformationalist approach, recognising the agent of the individuals to become active elements of change.

Figure 57: Number of initiatives for each Member States (n=58)



Source: own elaboration

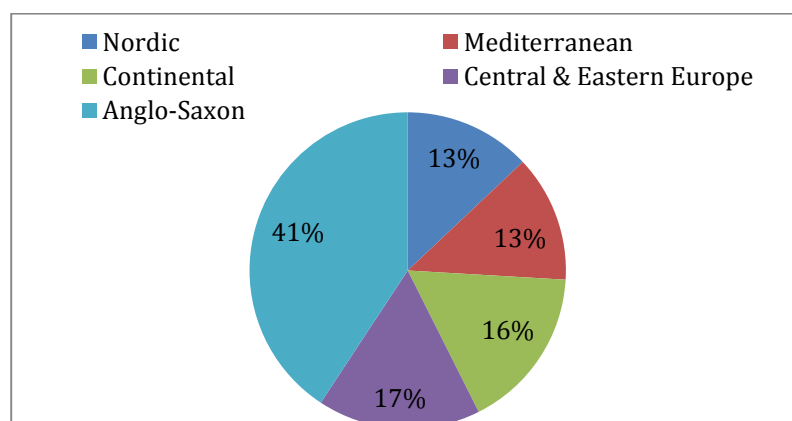
Concerning **levels of deployment**, more than half the initiatives in the sample are implemented at regional level, less than a third are national or local programmes, 19% are transnational, and 4.7% are global. The prevalence of regional level youth initiatives (51%) can probably be explained by the fact that many of the those selected are EU-funded and the allocation of the European Social Fund is managed at that level.¹⁰⁴ A large proportion of the initiatives are driven by the public sector (40%), the third sector is also very well represented (37%), and multi-sector partnerships account for 14% of the total subset. The most significant role played by the public sector remains funding (54%) and active service delivery (65%).

The examples of transnational initiatives, which represent 19% of the sample mapped, follow a distinct approach, based on 'bottom-up', community-driven innovation. These initiatives, such as **CoderDojo** – a global network of free computer programming clubs for young people aged 7 to 17; **Digital Opportunity Trust** – a global approach to youth unemployment which provides practical peer-led programmes, an interconnected global network and strategic cross-sector partnerships; or **Social Innovation Relay** – a global competition conceived by Junior Achievement Young Enterprise Europe (JAYE) and Hewlett-Packard to enhance secondary school students' knowledge and interest towards social innovation and entrepreneurship while developing their IT skills, provide interesting insights into the way ICT-enabled social innovation can be replicated and scaled-up. Most of the transnational initiatives originated as national grass-roots organisations which were then scaled up with the help of collaborative platforms. **The role of ICTs in this process of replication has been fundamental** and without them, global initiatives would not have been possible. This confirms findings from the literature review that factors such as the power of creative communities and collaborative ways of service provision at grass-root levels can lead innovation to become more easily replicable and scaled up (Manzini, 2015).

If we look now at the **distribution of the initiatives from a welfare typology perspective**, we note that, compared to the total sample of initiatives analysed in Chapter 5, the sub-sample under analysis here represents quite a balanced coverage of all five welfare systems identified, with one exception. Interestingly, Central and Eastern European countries have a larger share than the Nordic countries (see Figure 58).

¹⁰⁴ It is worth noting that many initiatives in the sample, especially those from Eastern European countries are co-funded by the European Social Fund (ESF).

Figure 58: Percentage of initiatives from each EU Welfare System (n=54)



Source: own elaboration.

The **Nordic welfare system**, as described in Chapter 4 in this report, is characterised by values such as solidarity, equality and a universalistic approach to welfare service provision. This means that most people have access to fundamental social services. In most of the countries in this model, the state or the community of care provide citizens with minimal services in terms of education, employment and care. The initiatives identified, although initiated by public sector institutions, have a strong community-oriented approach to service provision and they empower the community of care to be self-supportive. Thus the initiatives in the Nordic welfare model mainly address, in a collaborative manner, the needs of very specific categories of people (e.g. people with disabilities, children whose parents suffer from substance abuse, addicts, etc.). This could indicate that social innovation in Nordic countries is particularly important in addressing very specific needs, as a complement to mainstream welfare services.

For example, **Shadow World – Varjomaailma** - helps Finnish children whose parents suffer from substance abuse, to overcome this life situation. **KiVa** is an approach to decreasing the incidence and negative effects of bullying on students aged 7-15 in Finland. The programme was developed by the University of Turku and puts in place the necessary tools to help children, their parents and teachers deal better with bullying. **Mattecentrum** provides free maths teaching/tutoring face-to-face or online to pupils and students in Sweden. The service is made possible by volunteers and has a very strong social inclusion component. Children with immigrant backgrounds represent around 50% of users of this service, 16% of whom speak Somali as their first language.

The **'Anglo-Saxon' system** is characterised by a more liberal approach to service delivery in which the responsibility falls mainly on the individuals. Welfare services are made accessible mostly for people who are completely excluded and in a very vulnerable position, which prevents them from taking care of themselves. The initiatives mapped are mainly in the area of employability and employment, tackling social exclusion and civic engagement. The United Kingdom and Ireland are very good examples of the externalisation of services from the public sector to private and third sector actors. For instance, **3D Novations** is an ICT-enabled social innovation initiative providing employability and life skills training to young people with autism and other complex needs via online 3D digital cloud technologies. **MOMO (Mind of My Own)** addresses key problems facing social service providers who deal with children and vulnerable young people. **DOTs (Digital Opportunity Trust)** addresses youth unemployment by developing practical peer-led programmes through an interconnected global network and strategic cross-sector partnerships. The co-production of services is another feature mainly found in initiatives for young people in the Anglo-Saxon group. The same initiatives rely heavily on the role of ICTs to save costs or to become more efficient in the service delivery. The social inclusion component is also key. For example, the **Home**

Access Programme is a nationwide initiative funded by the UK government. It provides access to learning at home for children from disadvantaged families via a computer connected to the Internet.

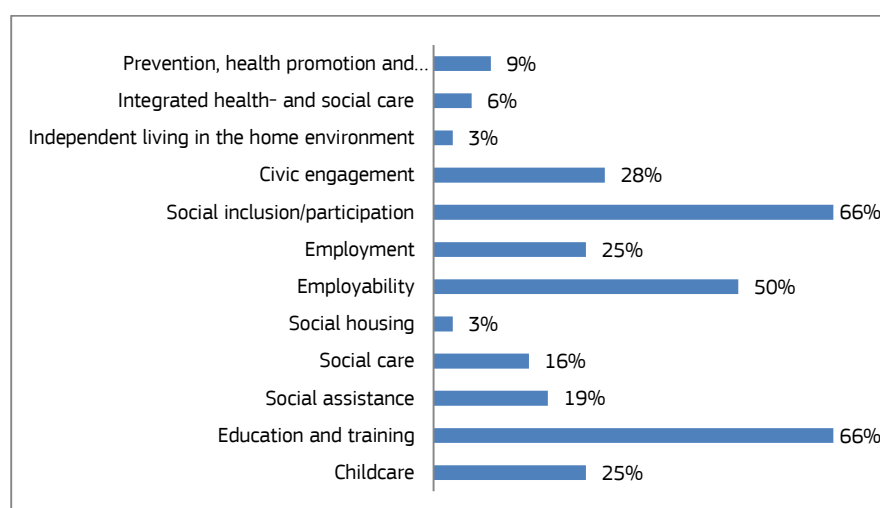
The '**Continental**' model is characterised by centralised and corporatist approach to service delivery. Countries in this welfare system usually provide social guarantees for education, employment and social assistance. In the cases under analysis, public employment agencies are a strong presence, especially in the German and French cases. For example, **Berufsinformations Computer** is an online career and vocational information platform which helps both job-seekers and Employment Services professionals to research suitable employment and training opportunities in Austria. '**Lieux Collectifs de Proximité**' ('neighbourhood community places') was created in France in 2010 by local initiatives to deliver a 'holistic' model of service delivery, including social inclusion and professional integration for disadvantaged young people and women. **Surfing to the Job or Program Jeun'ESS** are two other examples of ICT-enabled solutions to improve young people's employability and help them find employment. All these initiatives started as a result of a collaborative partnership between various social partners: public, private and third sector.

The **Mediterranean welfare system** is characterised by inequalities and imbalances in welfare. Social needs are diverse and very often unmet by mainstream public services. In the sample analysed, we noticed that most initiatives are either supported by the public sector through EU funds or by crowdfunding or community-based solutions. **Flash Giovani (Flash Young)** is a youth-focused platform which offers an integrated network of portals managed by - and aimed at - young people aged 15 to 29, who live in Bologna. **Mundo de Estrellas** is another example of a public-driven initiative which aims to provide hospitalised children in hospitals in the Andalusia region with the opportunity to get to know each other, communicate, and engage in educational activities while away from school. **Cometa** is an Italian organisation created in 1987 in Como (Italy) by a network of families committed to supporting and educating children and distressed young people and their families.

The findings of the literature review show that the '**Central and Eastern European**' model is characterised by a post-communist approach to social policies. This has contributed to people relying heavily on welfare policies. This tendency is completely disproportionate to the limited capacities of Central and Eastern countries to respond accordingly to the demand for welfare services. For this reason, most of the initiatives mapped either rely on crowd-funding or on private and EU support. The Eastern European countries in this model vary from the Baltic countries in terms of objectives and areas of intervention. Only a limited number of initiatives are driven by the public sector. They rely instead on partnerships with other sectors, and most of them are active in the field of social inclusion and provide new ways of delivering education and training services. This model is characterised by a period of strong social reform and budgetary constraints, and as a result, there are many unmet needs. Two of them caught our attention and it is worth mentioning that ICT-enabled social innovation could provide a solution to them: the need for flexible working arrangements, especially for return-to-work mothers, and the need for social inclusion for young people with intellectual disabilities. For instance, **Flexipraca**, a Slovak private sector initiative, is a web portal which provides and publishes flexible forms of employment (e.g. part-time, teleworking, flexitime, shared jobs, and compressed work week), while **Snoezelen** is a multisensory environment used to alleviate the conditions of intellectually-disabled people and enhance their communications skills.

The initiatives are unevenly distributed in terms of PSSGIs represented in the Youth sample (see Figure 59). Most of them are active in the areas of education and training, social inclusion and employment and employability opportunities.

Figure 59: PSSGIs addressed in the YI sample, percentages (n=32)



Source: own elaboration.

At the lower end of the spectrum are initiatives in the field of social housing, and in the three active and healthy ageing areas. In general, several social investment schemes are recognizable, especially in light of the strong focus on promoting education and training (66%), employability (50%) and employment (25%). **The focus seems to be on the need to address active labour market policies, for instance, in creating employment, education and upskilling for the unemployed.** In several cases, the three PSSGI priorities go together, and education and training programmes clearly aim to foster employability and work opportunities for young people. An interesting trend seems to be the growing number of initiatives which aim to provide young people with both IT and (social) entrepreneurial skills. This could indicate a perceived limitation in the mainstream public education system, which is at least partly confirmed by the interest of large private companies and their willingness to sponsor this kind of initiative. A good example is the Social Innovation Relay:

Box 17 - Fostering young people employability skills: the Social Innovation Relay - SIR

The **Social Innovation Relay (SIR)** is a global competition conceived by Junior Achievement Young Enterprise Europe (JAYE) and Hewlett-Packard (HP) to enhance secondary school students' knowledge and interest in social innovation and entrepreneurship, while developing their IT skills. The project is introduced to students in schools or online by HP volunteers (who have previously received specific training). It aims to familiarise students with the concept of social innovation and the range of social challenges that they could contribute to overcoming by creating a business. At this point, students register on the SIR platform and take the SIR Quiz. After passing the quiz, they can submit a business concept. The top 20 concepts then advance to the next round of the competition and receive mentoring and e-mentoring by HP volunteers to refine their business ideas. The business ideas are then submitted and winners are nominated at national level. National champions have the opportunity to present their projects online to a panel of HP judges from all across the world in the hopes of winning a global award. In 2013, over 20,000 students were reached, and 16,184 participated in the SIR Skills Quiz and Case Study stages of the programme. 23,000 volunteers from JA-YE and HP took part in the initiative. Based on an evaluation conducted by the University of Warwick, 85% of participants agreed that, as a result of the experience, they had a better understanding of social innovation and the existence of social issues in their communities, 78% agreed that they would be able to start up a social enterprise, 81% agreed that they have a better understanding of the role ICT can play in pursuing social and business initiatives, 78% agree that ICT has made participation in the SIR interesting and 82% agree that ICT has made their learning fast and easy.

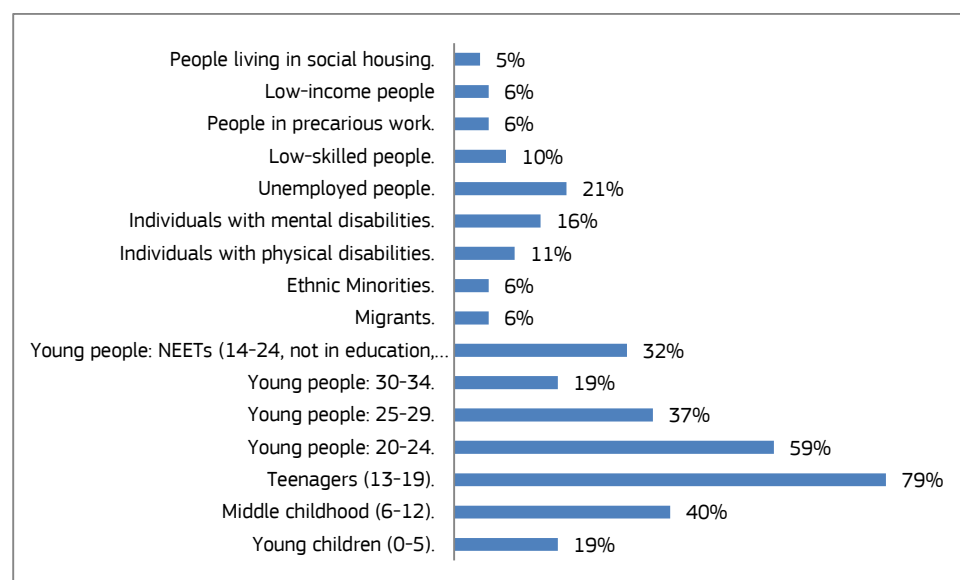
In terms of **type of initiatives**, the analysis clearly points to the prevalence of initiatives that actively deliver services - 25 (73%) - by providing a set of support functions to enable the active inclusion of disadvantaged young people. 19% of the initiatives are systems – usually they are embedded in a reform plan of the social services systems – e.g. ***The Joint Strategy for Sick and Vulnerable Citizens in Copenhagen***. The remaining initiatives consist of policies (1) or other types – for example, research projects.

With regard to the **Social Investment Package (SIP) objectives**, **85% of the initiatives aim to support SIP strand 2: investing in active inclusion strategy**. 65% of the youth initiatives are active in SIP strand 3: investing in people throughout their lives. This covers social investments made by social protection systems to address young people's needs at critical moments during their lives, from the early ages of development to adulthood. SIP strand 1: modernising social protection systems is under-represented, with only 24% of youth initiatives delivering services in this area. **This supports the idea that few national-level policies or strategies address youth issues through innovative and ICT-enabled approaches in Europe, even though investing in youth is one of the most important European priorities.**

The policy objective 'supporting social inclusion' is well supported as regards initiatives for young people (78%). The main focus is service provision innovation and better targeting of services (84% of initiatives) and improving access and take up of services (75%). Improving cost-effectiveness (44%) and simplifying administration (31%) are not high priorities for the initiatives in this subset¹⁰⁵.

The **beneficiary groups targeted by** the initiatives in this sub-sample consist of young people (20-34 years), teenagers (13-19 years), middle childhood (6-12 years) and young children (0-5). These groups include people with special needs (e.g. young people with intellectual disabilities, people in social housing, NEET or simply unemployed).

Figure 60: Main target beneficiaries in the youth inclusion sub-sample (n=63)

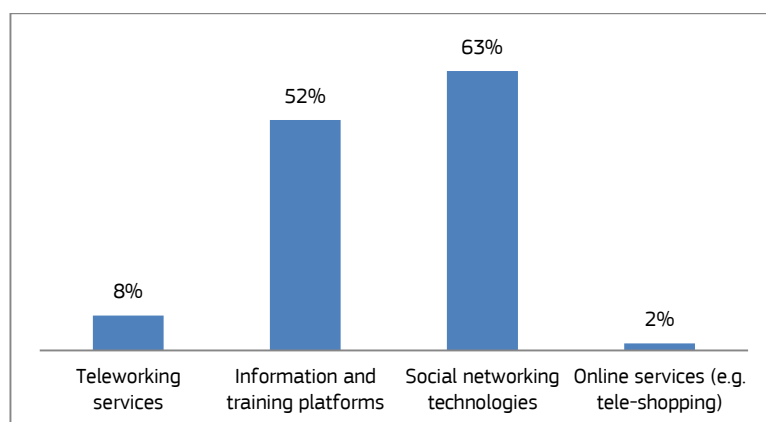


Source: own elaboration.

¹⁰⁵ This data refers to the 2015 subset of initiatives.

The typology of ICTs used to enable initiatives addressing young people is characterised by a wide diversity of tools and approaches (see Figure 61).

Figure 61: Typology of ICTs used – generic technologies, percentages (n=55)



Source: own elaboration

The majority of initiatives mainly use social networking technologies (63% of cases), 52% of initiatives are based on e-learning platforms, 8% provide teleworking and 2% e-services. The use of ICTs is a fundamental game-changer in most of the initiatives analysed. It is used to promote social inclusion through education and training services for the most marginalised groups (e.g. Cometa, DOT, Bridge, Youthreach, etc.), networking and engagement in communities (DOT, Humanitas, CISCO Networking) and access to the labour market (e.g. Job Centre Plus, Surf to the Job, Flexipraca, Lifelong Career Guidance Centre). On the provider side, the majority (52%) of initiatives use ICT-enabled front line solutions and 32% use ICTs as back-office solutions. 29% of the cases use case management tools to improve efficiency and coordination of operations.

6.2.3 Key results

When initiatives in this sub-sample are positioned on the IESI Knowledge Map, see Figure 62, they are perfectly aligned with the situation of the overall sample of initiatives (see § 5.1). Most initiatives in the youth inclusion sub-sample (59%) have a disruptive innovation potential, compared to 68% in the overall sample. In 22% of initiatives, however, ICTs are used to enable more sustained change to support or complement existing efforts and processes to improve organisational mechanisms of services provision. An example is **'Lifelong Career Guidance Centre'**, which introduced a new way to deliver quality tailor-made services of lifelong career guidance to Croatian citizens, especially young people. In 13% of the cases, ICTs radically modify existing service delivery. On the other hand, only 6% of the initiatives use ICTs as an incremental change factor, including those initiatives which use ICTs as enabling technologies, for instance having established websites or portals to help their operations.

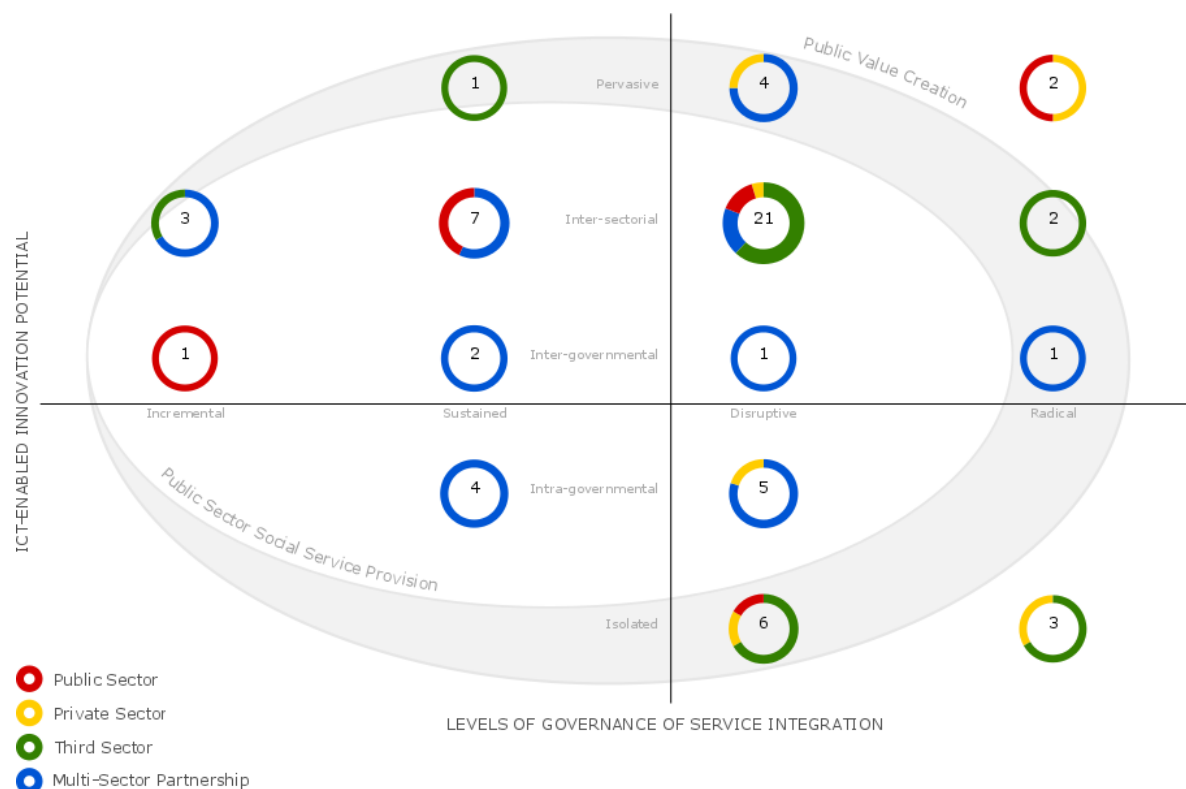
As regards the **governance level of service integration**, the majority of initiatives (52% in the sub-sample, the same as it is in the complete set of initiatives¹⁰⁶) have been implemented through an inter-sectoral integration of services, which shows the crucial role played by collaborative and multi-partner approaches to social innovation. This is very much in line with the IESI conceptual framework and the findings from the literature, and proves that social innovation involves co-production of services, harnesses collaboration, and stimulates new coalitions. **This finding is important for policy makers and social actors delivering the SIP who are looking at ways to**

¹⁰⁶ See also Figures 15, 52, and 74 for comparative analysis across thematic sectors.

promote social investments with the help of multi-actor partnerships and the involvement of the whole community of stakeholders concerned.

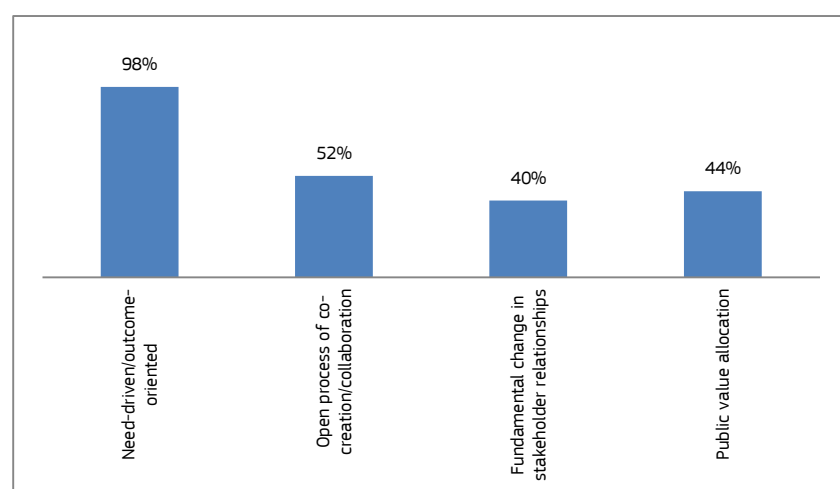
In this connection, and with specific regard to the dimension '**elements of social innovation**' of the IESI conceptual framework, as shown in Figure 63 most initiatives (98%) provide need-driven, outcome-oriented services. 52% are characterised by open processes of co-creation and 44% by the allocation of public value. 40% also contribute to a fundamental change in the relationship between stakeholders.

Figure 62: IESI Knowledge Map of ICT-enabled social innovation initiatives promoting active inclusion of young people



Source: own elaboration.

Figure 63: Elements of Social Innovation - % (n=63)



Source: own elaboration

Overall, the analysis of sub-sample of ICT-enabled social innovation initiatives which addresses active inclusion of young people shows that **most of these interventions develop need-driven solutions. These aim to providing young people with opportunities for education and training, services to promote employability and more active inclusion in society.** The initiatives help to meet several social needs, such as: the creation and facilitation of access to education and training opportunities, the educational needs of the vulnerable and the socially marginalised, employability and employment, and active inclusion. The outcomes associated with the use of ICTs in the service delivery seem to consist of: improvements in or facilitation of access and take-up of services; better targeting of services; improved service provider/client interaction and collaboration; increased efficiencies through better co-ordination of services; improved cost-effectiveness of services; improved service outcomes through professional knowledge exchange; and better monitoring of users. In general terms, this means that, ICTs are being used to support social innovation in four main ways: i) for learning - promoting access to and re-engagement in education and training through innovative forms of learning; ii) to promote personal empowerment and social and active participation, networking and engagement in the local community; iii) to promote employability and access to the labour market; and iv) to support more effective service delivery and prevention of social exclusion through early interventions.

Most of the initiatives have disruptive social innovation potential. In most cases, ICTs play a fundamental role in service delivery, contributing to new *modus operandi* in e-learning, collaborative platforms for employability or employment, or radically innovative technological solutions for social inclusion of people with intellectual disabilities. In terms of levels of governance of service integration, it is clear that social services delivery reform is a priority. ICT-enabled social innovation can support this objective by facilitating inter-sectoral integration of services and collaborative partnerships which engage community-based organisations and the voluntary sector in working with the public sector. Concerning the social investment model and the objectives of the SIP, it also seems that there is a clear pattern of investing in social capital and developing young people's skills so that they can become independent, autonomous and self-reliant. Most of the initiatives have a strong focus on empowerment, social inclusion and giving back to the community of care, having in mind the secondary policy objective of lowering social expenditure levels, which is key with regard to the goal of contributing modernising the European social protection systems.

6.3 Prevention, health promotion and rehabilitation in active and healthy ageing and long term care for older people

6.3.1 Introduction

The IESI project puts special emphasis on some of the challenges posed by ageing societies (as identified in the SIP) and investigates how policy and practice could respond to these challenges with the support of ICTs. Three policy themes to do with active ageing and long-term care were identified, out of which two – independent living and integrated care – were already covered to some extent in the first year of the IESI project. The third, (disease-) prevention, health promotion and rehabilitation had not been included within the scope in the first mapping exercise. Therefore, the goals for the second mapping exercise were to 1) expand further the set of initiatives in the independent living and integrated care policy themes, and 2) extend the scope of the mapped initiatives to prevention, health promotion and rehabilitation. The initial set of 20 initiatives of the first phase was more than doubled (including the extension to the new policy theme), and the variety of the geographical scope was also improved, as planned.

While the first year's report (Misuraca et al, 2015) elaborated extensively the state of the art in the areas of independent living and integrated care, the present report does the same for the policy theme of prevention, health promotion and rehabilitation (§3.2).

The essence of it was, just briefly, that ICT-enabled social innovation solutions show great potential for tackling the increasing pressure on social protection systems and social services. This dynamics is, by all accounts, very likely to speed up in the near future. Though the potential has been recognised, however, hard evidence is somewhat scarce and incomplete in the literature to date.

6.3.2 Analysis of ICT-enabled social innovation initiatives in active and healthy ageing and long-term care for older people

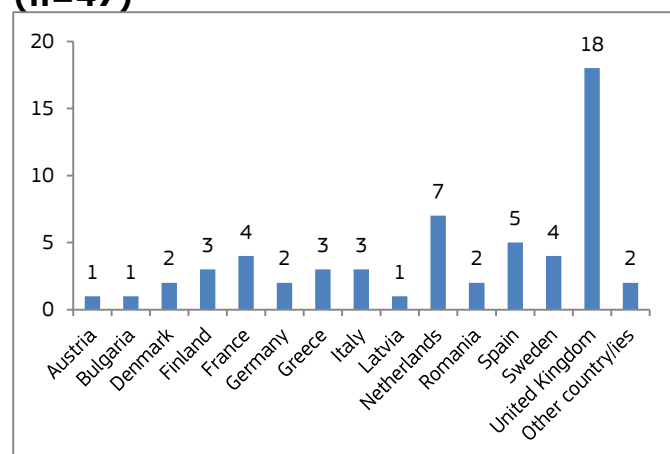
In 2015, as a result of the second phase of data collection, the IESI research project identified and mapped 55 ICT-enabled social innovation initiatives that were:

1. **policy relevant**, i.e. by addressing one or more of the challenges that ageing societies pose according to the definition of the SIP and adopted by the IESI project (see §1.1);
2. clearly **made possible or improved by the use of ICTs**; and
3. **capable of delivering positive outcomes** on those policy objectives, based on (available) evidence and a systematic assessment.

The IESI project focuses primarily on the EU Member States in order to understand to what extent ICTs can contribute to the achievement of key EU policy goals, including the modernisation of the EU social protection systems.

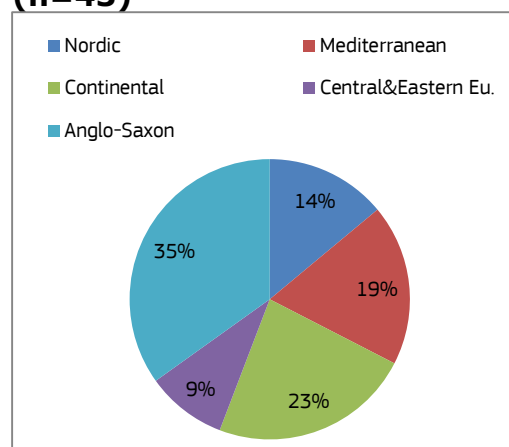
Of the total 55 initiatives, 47 (85%) involve countries from the EU28. However, the ageing of societies, some of the relevant challenges and the technological spread, advancements and markets are truly global. For these reasons, we also identified and mapped 8 initiatives that operate outside the EU, as they may teach us valuable lessons. However, in line with the general approach to analysis in this deliverable, Figure 64 shows only those initiatives (n=47) that operate in at least one Member State¹⁰⁷. Moreover, on the right-hand side of Figure 65 shows the distribution of initiatives according to the adopted welfare state-classification (§4.1). In line with the general approach applied throughout this report, only those initiatives that are not "trans-welfare state" are included, i.e. those that operate exclusively within the boundaries of a single EU welfare state-category. Due to this restriction, the total number of initiatives is reduced to 43.

Figure 64: Initiatives from each MS (n=47)



Source: own elaboration

Figure 65: % of initiatives/WS (n=43)

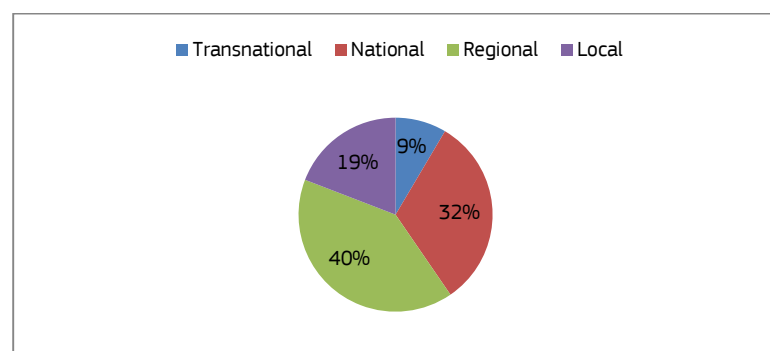


Source: own elaboration

¹⁰⁷ The specific analysis of extra-EU28 initiatives will be conducted in the third phase after further data collections on that area.

Altogether 14 Member States are represented in the AHA & LTC subsample, and most of them have more than one initiative. There are also 4 cross-country initiatives, so the 47 initiatives are spread across 56 Member States in various combinations. There are even two initiatives that reaching outside the boundaries of the EU28. Looking at the distribution of initiatives by welfare state grouping, Central and Eastern Europe has the fewest. Surprisingly, Nordic countries also have comparatively few initiatives, i.e. 14% of the sample.

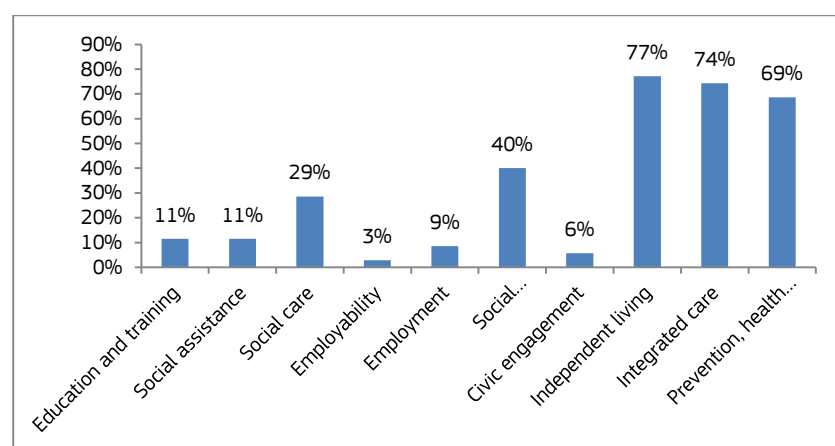
Figure 66: Scale of implementation of initiatives with at least one MS involved, % (n=47)



Source: own elaboration.

The separation of the 3 policy themes addressed by the IESI project in the broader policy area of active and healthy ageing and long-term care are not always clear-cut, often overlapping. These policy themes, namely 1) independent living; 2) integrated health- and social care; and 3) prevention, health promotion and rehabilitation, are intertwined, and they often take a different perspective on the same complex phenomenon. This is also reflected in the next chart, where the PSSGI areas and indeed how they overlap is shown in the last three columns in the 35 initiatives mapped in 2015¹⁰⁸.

Figure 67: PSSGI areas addressed by initiatives of the AHA<C area - % (n=35)



Source: own elaboration.

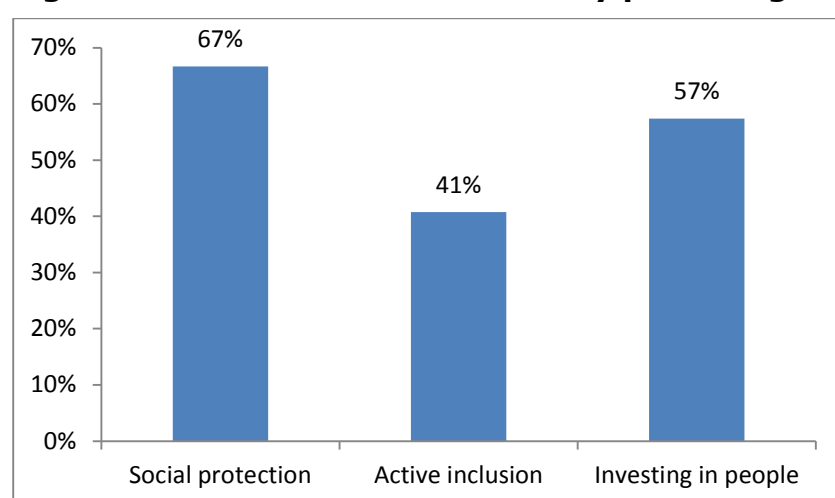
Not only is the overlap among the three policy themes apparent here, but also, to a lesser extent, the relative prevalence of social inclusion and participation. But these inter-relations are not at all surprising, as it is widely accepted that meaningful social

¹⁰⁸ As initiatives addressing primarily the prevention, health promotion and rehabilitation theme was not covered during 2014, and therefore it, and its 10 initiatives will be more closely looked at a later part of this chapter.

ties and active participation are instrumental to subjective wellbeing. These could enable older people *to live independently* even if they are alone, by mitigating the discomfort and stress that loneliness otherwise could bring - hence the inclusion of the theme of *prevention* in this example. As regards *integrated health- and social care*, on the other hand, inclusion could mean "societal inclusion" in the sense that empowering older people to be involved in care planning and provision could lead not only to better, more appropriate personalised care and a higher overall satisfaction, but it could also alleviate any perceived exclusion and ageism in services' provision processes. The relatively frequent presence of social care probably does not need to be interpreted: this is indeed a very obvious core ingredient in the long-term care domain.

The bottom line is that the somewhat abstract main 3 policy objectives identified as relevant for the IESI project are all fairly represented. This shows therefore that, in practice, the AHA<C policy area is at the heart of the SIP-framework. In fact, they often overlap, because one initiative could be, and often is, relevant for different SIP-strands at the same time.

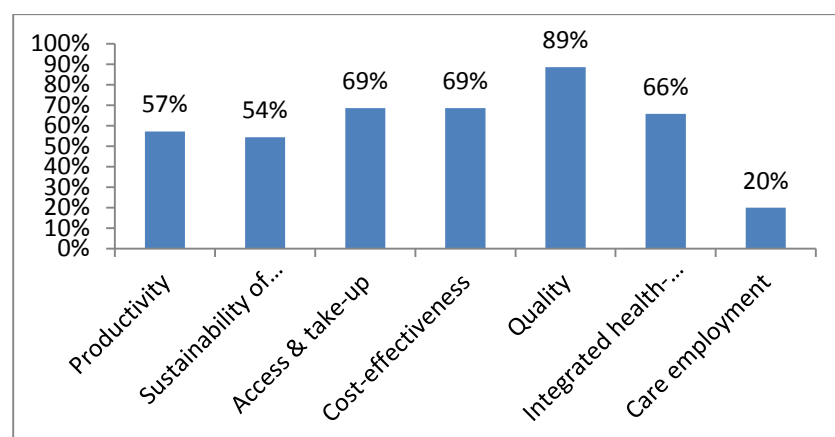
Figure 68: SIP strands addressed by percentage of initiatives (n=55)



Source: own elaboration.

As regards the service provision aspect of the more concrete policy objectives (see §1.1), 89% of the initiatives in the sample aim to improve the *quality of services*, while around 70% aim to increase access and take-up and promote cost-efficiency. Apart from the objective of *increasing employment in the care services*, all the policy goals are addressed by more than half of the initiatives in the sample.

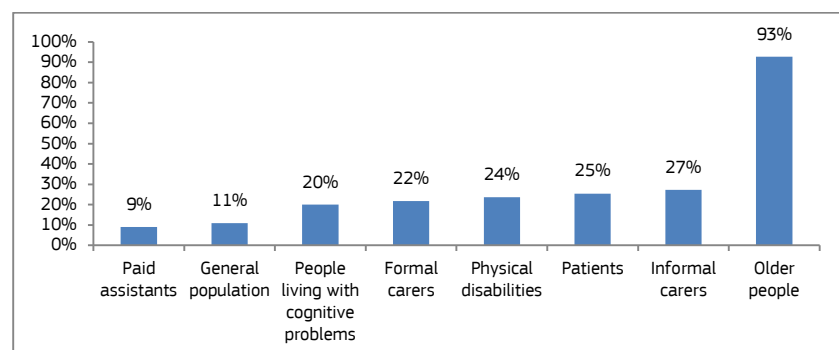
Figure 69: SIP strands addressed by percentage of initiatives (n=55)



Source: own elaboration.

It is important to look at the beneficiaries of the initiatives as well. Although the primary targets are predominantly older people, they are not always the only beneficiaries overall, and at times they may not even be the primary targets. The following graph shows the target populations of the initiatives¹⁰⁹.

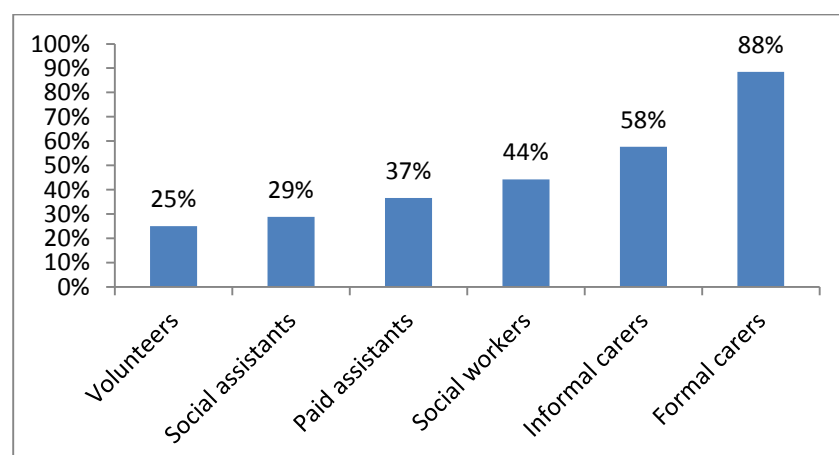
Figure 70: Final main beneficiaries (n=55)



Source: own elaboration.

It is important to note that the above categories overlap. Very often those who lose their *cognitive or physical capacities* to the extent that they need some sort of service intervention to improve their quality of life are very often *older people* at the same time. This overlap may be smallest in Anglo-Saxon welfare regimes, where services are usually means tested and may thus be less tied to age.

Figure 71: Intermediary actors involved in the initiative (n=55)



Source: own elaboration.

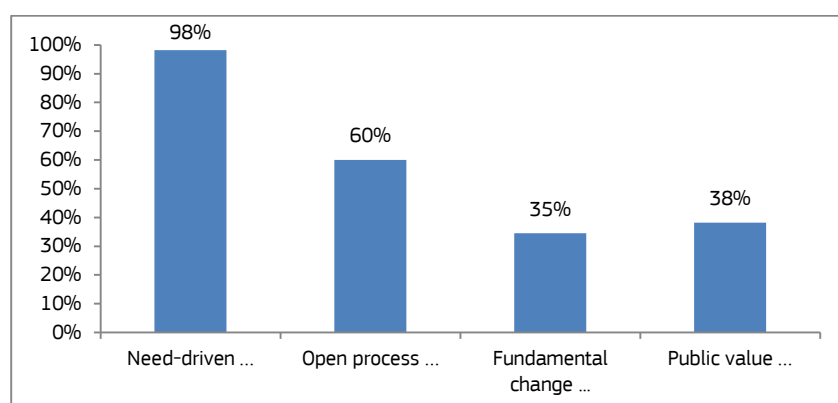
6.3.3 Key results

We look now at how the sample falls into the conceptual framework of the IESI project that assesses the different dimensions of the ICT-enabled social innovations. Overall, the initiatives **seem to have great potential for the accomplishment of policy aims**.

The four key elements of social innovation identified by the IESI project are all represented proportionally. Each initiative has 2.3 of them on average, although the almost "mandatory" aspect of addressing a real need somewhat distorts the results (without them, the mean number of elements is 1.8 in 40 initiatives), see Figure 72.

¹⁰⁹ For practical reasons only those target groups shown that are represented in more than 5 % of the initiatives across the full AHA & LTC sample (n=55).

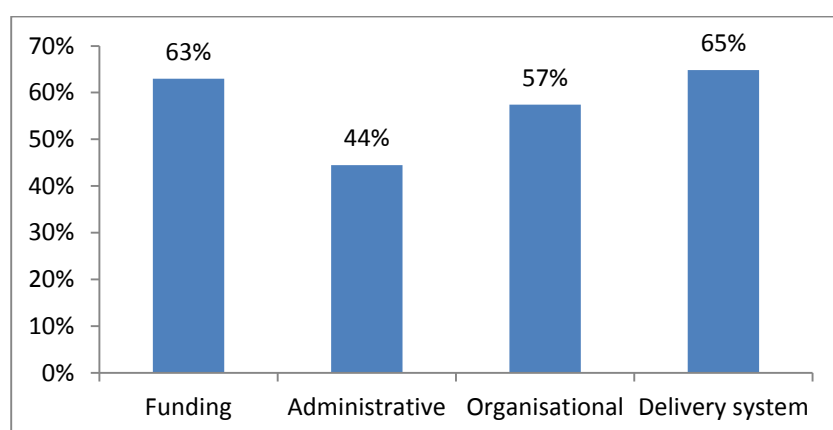
Figure 72: Elements of Social Innovation - % (n=55)



Source: own elaboration.

The types of service integration dimension also show an advanced level of integration, on average 2.3 types are integrated into each initiative. Administrative integration is the least frequently implemented, while funding and delivery integration is achieved in almost two-third of the initiatives in the sample (see Figure 73).

Figure 73: Types of service integration (n=55)

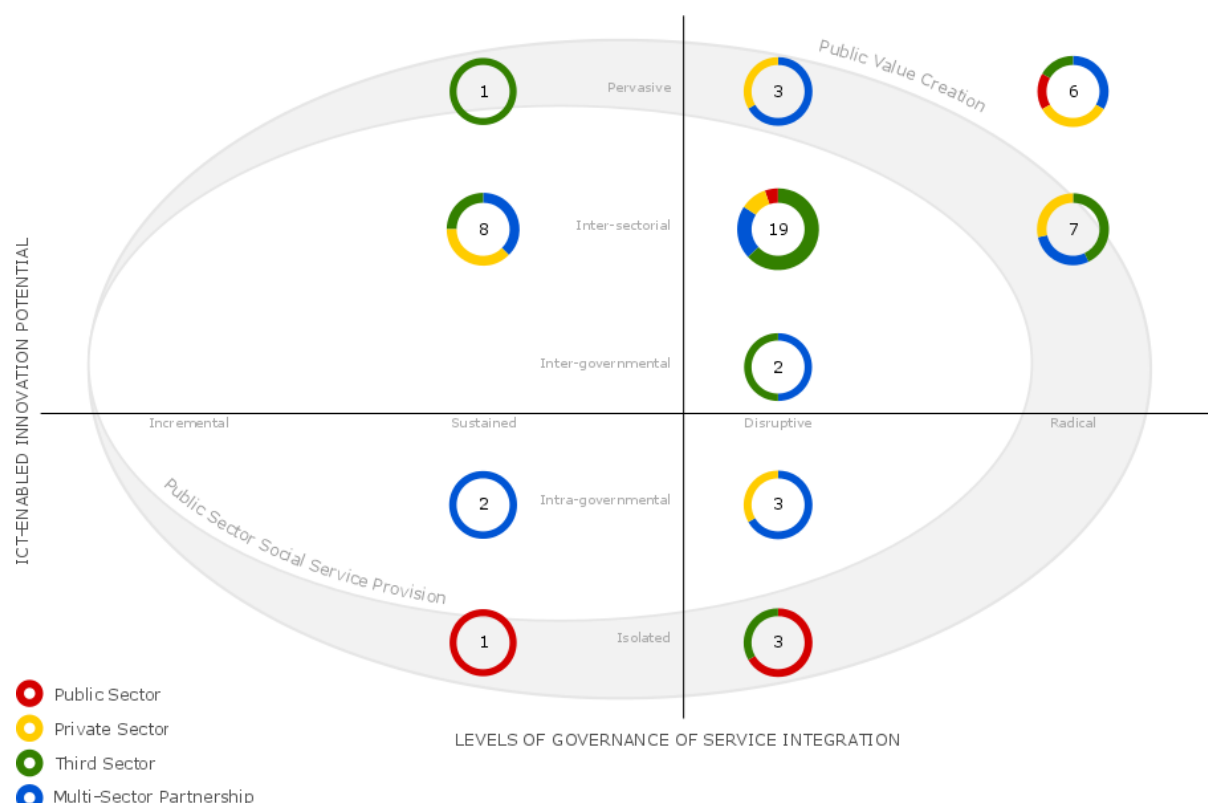


Source: own elaboration

The other two dimensions of the IESI conceptual and analytical framework, *namely ICT-enabled innovation potential* and *levels of governance of service integration* form the two axes of the IESI Knowledge Map. What is most striking in the policy area of active and healthy ageing and long-term care is that there isn't a single initiative up until the second round of data collection that could have been classified as *Incremental* in the ICT-enabled innovation potential dimension. On the other hand, the overall majority of the initiatives (55%) could have a *Disruptive* effect and 24% could have a *Radical – altogether transformative –* effect on the way the same social challenge was addressed before the use of ICTs by services or policy. Sometimes, though, "orthodox" practices did not exist and needs may not have been recognised, because without ICTs, certain services would not have even been conceived and the cultural shift in needs has also had its effect on the demand and supply sides. When it comes to the *Levels of governance of service integration*, the majority of initiatives (62%) are based on *inter-sectorial collaboration*, i.e. they result from collaboration between government and service delivery providers in private or not-for-profit sectors. They may include joint investment strategies, co-location of staff and formal networks of service delivery organisations, see Figure 74¹¹⁰.

¹¹⁰ See also Figures 15, 52, and 62 for comparative analysis across thematic sectors.

Figure 74: Knowledge map of the AHA and LTC subsample (n=55)



Source: own elaboration.

This approach, of course, fits very well with the new proposals by the SIP and other documents (PwC, 2015) for possible ways of transforming services run by closely aligned multi-stakeholder in an integrated manner. Moreover, almost one-fifth of the initiatives are *pervasive* (18%), which means that they are integrated beyond the traditional boundaries of administrative/operational integration. They are usually embedded in a new modus-operandi where service providers and beneficiaries co-produce services, develop new delivery mechanisms and reallocate resources and roles in order to maximise public value creation.

In conclusion, one of the most important findings is that in the realisation of policy goals for active and healthy ageing and long-term care, ICTs may have strong potential. They seem to possess the capacity to improve the practices and policies. They cannot, of course be the panacea to all the troubles that service delivery and social protection systems are facing in this field – or for all the needs that users may have, for that matter. Nonetheless, they have the potential to ease systemic pressure considerably.

As regards (disease-) prevention, health promotion and rehabilitation, ICT-enabled social innovation initiatives have great potential for improving some care processes and other services to keep people reasonably healthy. They can reduce the incidence of frailty, by postponing its onset, and reversing or mitigating the course of illnesses, frailty, functional limitations and disability. For this, very much in line with the social innovation paradigm, the involvement of older people and their empowerment in the co-creation of planning, delivering, and assessing the services could also be enhanced by technology.¹¹¹

¹¹¹ It should be remembered that the topic of rehabilitation and re-enablement was not represented in the sample in 2014, thus next phases of data collection need to be expanding to

More specifically, 9 initiatives out of 55 primarily address the challenges belonging to the **Prevention, health promotion and rehabilitation**, one of the three policy themes in the broader policy area of active and healthy ageing and long-term care. Even if we take into account the fact that this theme was not investigated specifically during the first year of the mapping, 9 initiatives seems relatively few. However, this is partly confirmed by the findings of the literature review (§3.1), i.e. that proven benefits in this field are scarce, partly due to the fact, that a longitudinal follow-up – i.e. assessing the results over a relatively long period of time – is challenging to accomplish.¹¹²

On the other hand, it is worth reminding the reader again, that initiatives in this field – and also policy objectives to some extent – overlap somewhat, i.e. an initiative that primarily addresses independent living, often uses a preventative measure as a tool to achieve it. Nevertheless, the 9 initiatives under scrutiny could have been identified primarily by addressing the **policy goals identified**, being measures to keep people healthy and to reduce the incidence of frailty, postpone its onset and reverse or mitigate the course of illnesses, frailty, functional limitations and disability. Its three topics include 1) prevention and early detection/diagnosis of frailties and functional decline and illnesses; 2) management of frailties and functional decline; and 3) rehabilitation and re-enablement.

The initiatives identified as primarily focusing on the area of prevention, health promotion and rehabilitation nevertheless address 3.2 extended PSSGI areas on average, in 5-5 instances independent living and integrated health- and social care. They are all from the EU, and no non-EU countries are involved. In fact, all the initiatives are operating within a single country, i.e. no transnational initiatives are involved: 4 national, 3 regional and 2 local initiatives are in the sample. Finland, Germany and the Netherlands are represented with one initiative apiece. There are six initiatives from the United Kingdom, which again reflects the prevalence of assessment culture and practice as an integral part of general service and policy design in this country.

The initiatives are mostly services (n=7), yet 2 systems have also been identified and documented (mapped). If we take a closer analytical look on these initiatives in order to understand what policy-relevant outcomes they are delivering and how, we see that as regards prevention, these successful initiatives do indeed take a novel approach to health. They have overcome the classical, "orthodox" paradigm of simply curing diseases, realising that in the case of long-term conditions this would not be efficient anyway. The professional and cultural paradigm shift has many elements, and in the realisation there is clearly an important role for ICTs as enablers.

Wellogram and **Know Your Own Health** are similar initiatives from the ICT-enabled social innovation perspective of the IESI project. They are both integrated into the National Health Service in the UK, but they also incorporate social care professionals, third sector organisations and volunteers into an integrated health and social care set-up that provides a personalised service. They both aim to support the prevention and management of long-term conditions through lifestyle changes, for which they provide support and even help with mobilising a social network of users and volunteers with or without the same condition. An important difference, though, is that while the focus is on prevention in Wellogram, Know Your Own Health aims to support people who are already living with long-term conditions.

this area more purposefully. There are some known borderline-ICTs like exoskeleton robots, but the evidence on outcomes and their overall scope, i.e. whether they're focussing on ageing-related, ageing-associated conditions are not that clear-cut.

¹¹² This, as per design of the IESI project, was the 'bottleneck' that prevented entering many identified, even interesting and promising initiatives into the Mapping repository, as only those initiatives are of interest that are capable of delivering evidence-backed positive policy-relevant outcomes.

Wellogram, provided by a social enterprise, deploys Wellogram Guides at NHS premises who act as lifestyle coaches who change users' understanding of health. They help users to shift from "illness" to "wellness", by giving them a more holistic and usually more satisfying understanding of health and their conditions. Collaboration starts with an attempt to understand the motivations and other contextual circumstances behind an unhealthy behaviour, and to provide as personalised a service as possible. Not only does the Wellogram initiative reframe the concept of "health", but it also helps the users to identify a social network that can support them through their lifestyle changes. To do this, it relies to a great extent on mobilising a social network, realising the potential of a "social capital" one possesses. Face-to-face meetings with the Guides are possible, and users can also communicate with them online via different social media and other channels. A proven SIP-relevant outcome of Wellogram is that it builds users' capacity to prevent and manage certain long-term conditions by, for example, mitigating risk factors like being overweight (this applies to three quarters of the users). Another SIP-relevant outcome this initiative contributes to is the enhancement of social inclusion.

Know Your Own Health, on the other hand, is an online coaching platform that aims to trigger a change in behaviour, enhance self-management skills and self-confidence. A very important aspect of this aim is to facilitate peer support through social interaction on the platform among people living with the same long-term condition. This support – be it practical (sharing information about the condition or the available services) or emotional (people feel that they are not alone with their troubles) – could be a very efficient method of enhancing the quality of life of users. The platform also helps to make people more knowledgeable – it increases their health awareness and literacy about their condition through group-courses, web-courses and face-to-face sessions. Also, it helps to set goals, and monitors their accomplishments towards achieving the necessary changes for enhanced wellbeing. The overall aim is to reduce dependency, and improve quality of life through a long-lasting behavioural change.

MySupportBroker, builds its services entirely upon peer support in an innovative way, which is worth presenting separately in more detail (see Box 18).

Box 18 - MySupportBroker

Social enterprise **My Support Broker** (MSB) has developed an innovative model to empower people to plan and self-manage their social and health care. The objective is to help beneficiaries plan, source and manage their care and support services so they move from being passive recipients of a limited range of services to active consumers, shaping the market through their spending power. The organisation recruits and trains people with long-term conditions (disabled people, older people, people with an ethnic minority backgrounds) as volunteers or professional 'peer brokers' who support others with similar care needs. Peer brokers advise people on a range of services and offer practical and emotional support. At the same time MSB works with public social and health care service providers and Councils to help them increase the take up of personal budgets and personal health-budgets and make savings on the cost of care and support planning. The initiative presents radical levels of ICT innovation: user-friendly, accessible software allows for a person-centred and integrated model of support planning. Customers can choose either to make their own plan on line, to get light-touch advice and guidance from volunteer Support Brokers, or to get full support from professional assistants (Support Brokers). The on-line platform gives access to a direct payment and personal budget support system and also to a "lifestyle" support system. www.mysupportbroker.com is based on customer-held integrated health and social care records, which brings together information from all agencies. This makes possible the delivery of integrated and effective care, and allows beneficiaries to share information and interact with their Support Brokers, public health and social workers, family and friends. By connecting beneficiaries and allowing active cooperation between them, their local Support Broker and social service professionals, the platform dramatically changes existing mechanisms of service provision. Roles are fluid: beneficiaries are not only

empowered to manage their own health conditions and social benefits, but also incentivised to help new beneficiaries to do the same by becoming Support Brokers. These brokers "replace" social/health workers, who only intervene if necessary. They are recognised and compensated for their expertise in wisely managing social and health benefits and styles of life. MSB has achieved very positive results so far. In 2014, 25 support-broker jobs were created, 32 people were accredited with NVQ level qualifications and customers had a 98% satisfaction rate. There were impressive improvements in users' capacity to cope with their problems, make better decisions about their own care and life styles and users were also more likely to feel optimistic and relaxed. From the point of view of public service providers, every 1 GBP spent on MSB Support Brokerage produced a saving of 8.65 GBP (mean) on the cost of care, a 65% reduction in transaction costs and 20% in the overall cost of care.

Social capital and social integration to networks are important assets in a strategy to cope with physical, cognitive and emotional challenges and dependency. In addition, they are recognised as playing an important role in actually preventing some of these adverse situations. They can support ageing - or older people to stay active and socially embedded, which could help them to stay physically and emotionally fit for significantly longer.

50 Plus Net is an example of an ICT-enabled initiative that can combat loneliness by building social capital for ageing and older people. It was launched in the Netherlands, and was initiated by the then prime minister. Users can find interest groups on the site, exchange information, and engage in social and leisure activities on- and offline with those connected. Since it was founded in 2005, the network has successfully gathered more than 37,000 active participants. Feedback from the older end-users reports improvements in their lives such as more social participation, reduced levels of loneliness and better health outcomes.

And finally, **Partnership for Older People Projects** was a policy initiative to assess the feasibility of ICT-enabled services throughout the UK. Altogether 522 organisations were involved in POPP pilot projects, along with local authorities, Health and Social Care Trusts, emergency services, housing associations, voluntary organisations, social enterprises, and private sector organisations. Users were also extensively involved in the services design. The overall outcomes were promising (Personal Social Services Research Unit, 2009), as users reported a significantly increased subjective quality of life, while the access and take-up of services also increased. Interestingly, back then, with the technology available and technological skills of this older target group, non-technological interventions or very simple assistive technologies (such as social alarms) were often more effective in increasing elderly people's well-being and autonomy than more sophisticated tools (see Box 19).

Box 19 - Partnership for Older People Projects

The **Partnership for Older People Projects** (POPPs) was launched by the Department of Health in the UK to promote healthy and active ageing in 29 localities across the UK. It had a total budget of 60 million GBP. Local authorities worked together with health and third sector organisations to develop and deliver new or better services, involving end-users not only in their design, but also in their management, delivery and evaluation. The partnerships also had a strong awareness raising and communication component, which led to increased referrals and take up of services as local knowledge grew and a range of Long-Term Care (LTC) services became available.

The primary objective of POPPs was to improve the health and wellbeing of older people through local projects focused on health promotion, disease prevention and rehabilitation and home care services. From the 29 sites, 146 core projects were set up to respond to local priorities. Of these, two thirds focused on the community, addressing social

isolation and/or health promotion. One third focussed on reducing pressure on acute care, decreasing admissions, and improving hospital discharge and home care. Examples of interventions within projects include: training programmes for health and social care staff in services for older people; web-based information services; handyperson schemes; befriending schemes; welfare advice and signposting services; holistic assessments; falls prevention; carer support; rapid response teams; integrated case management and case finding initiatives. The average age of service users was 75 and two thirds were women. 81% of a total of 264,000 service users lived in their own homes, while others lived in residential or sheltered accommodation. The initiative was extremely successful, and over 85% of implemented projects were continued or even scaled up after the government funding period.

POPP is a need-driven and outcome-oriented initiative, intended to meet the needs of older people in the UK for healthy and active ageing and social inclusion services in a sustainable and cost-effective way. POPP also employed an open process of co-creation and collaboration, including involvement of service users in design, recruitment, governance, provision and evaluation.

7. Conclusions

This chapter discusses the main conclusions derived from the analysis of the database compiled through mapping the contributions made by ICT-enabled social innovation that promoted social investment through integrated approaches to social services delivery for the implementation of the SIP. It also identifies limitations and gaps in the current mapping exercise and makes recommendations for future research. In addition, it outlines implications and possible directions for policy.

7.1 An enriched IESI Knowledge Map and conceptual framework

This report presents the analysis of the 2015 IESI mapping database. It provides an enriched picture of the existing knowledge base and evidence of how ICT-enabled social innovation initiatives that promote social investment through integrated approaches to social services delivery can contribute to better achieving the policy objectives of the EU Social Investment Package (SIP). This package in turn supports the realization of the goals of the EU 2020 strategy in terms of inclusive growth and employment.

During the first phase of **IESI mapping in 2014**, following a comprehensive review of the state of the art in the domain, a conceptual and analytical framework was developed to serve as a structure for mapping and analysing ICT-enabled social innovations that promote social investment through integrated approaches to social services provision. This framework was used to analyse 70 examples of these ICT-enabled social innovations. They were selected from an inventory of 140 initiatives gathered through desk research and consultations with experts. The resulting analysis, the 2014 IESI Knowledge Map, was used to explore how innovations in the areas of Personal Social Services of General Interest (PSSGI), that are both ICT-enabled and social in their ends and means, have changed the landscape of service provision from a service integration perspective. The IESI project in fact focuses on **exploring how different ICT-enabled social innovations contribute to enhancing social service delivery through integrated approaches**. They take the trend in social services reform to move towards greater integration of service provision into consideration. This trend increases the coordination of operations within the social services system in order to improve efficiency and produce better outcomes for beneficiaries. However, this project is exploratory and several limitations were identified in the first 'round' of mapping. For example, the initiatives collected in the first phase of the research did not constitute a representative sample of the wealth of ICT-enabled social innovation initiatives in social services across Europe (See JRC Science and Policy Report, Misuraca et al, 2015b).

The second 'round' of the IESI Mapping conducted in 2015 set out to address and overcome these limitations and better structure the field of analysis. In particular, initiatives gathered during this phase of the research aimed to integrate the IESI knowledge base in order to define a sample of initiatives that illustrate the different EU welfare systems. Thus, a more accurate overview of the phenomenon under investigation across Europe could be provided. The IESI Knowledge Map 2015 also addressed the gaps in geographic coverage which were identified in the 2014 data-set, i.e. the underrepresentation of Eastern Countries and some Southern and Central Countries.

While gaps identified in terms of PSSGI covered were mostly addressed, **it is apparent that ICT-enabled social innovation is more wide-spread in certain social service areas than in others.** This is particularly true in the Social Inclusion domain, where over half the initiatives in both the inventory and mapped samples carry out activities in this field. This is mainly due to the fact that many initiatives across all the PSSGI have a very strong 'social component', targeting disadvantaged population groups, in line with the IESI project focus.

During the 2015 mapping, **a further 280 initiatives were collected for the inventory. These, added to the 140 identified in 2014, bring the total number of initiatives in the inventory database to 420**, for which basic information has been collected and analysed as part of IESI. **These initiatives represent all the Member States in the EU28** and also some countries that are not part of the EU but are considered in the vanguard of the field under analysis (these mainly belong to the OECD group or emerging countries, including the BRICS). The database includes examples of all the categories of PSSGI as defined in the IESI research.

From the inventory generated, 140 initiatives have been further documented and analysed, together with the 70 initiatives already mapped in 2014. This information forms the **IESI knowledge map 2015**. It is **composed of a total database of 210 ICT-enabled social innovation initiatives** which promote social investment through integrated approaches to social services delivery and present evidence of impact achieved. Here, it should be mentioned that **the IESI project clearly adds value because it pays special attention to how evidence of impact is measured**. Unlike the growing numbers of mapping exercises and collections of practices especially in the domain of social innovation (a recent 'mapping of the mapping' in the area done as part of the EU-funded project SIMPACT, counted at least 17 EU-funded gathering data and examples in the field), the IESI selection process goes beyond the quite superficial approach taken by some of them.

The IESI knowledge base is in fact structured around the 'evidence' base' of the initiatives. Given the specific policy-orientation of the project, it is intended to contribute directly to EU policy design and to support Member States in the implementation of their SIP-related policies. In this regard, an important element of the IESI project is the **design and development in-house of a relational-database and online interface** that allows the IESI research team at JRC-IPTS, colleagues from other policy DGs and EU institutions, and external experts as collaborators and representatives of key stakeholders, to manage the knowledge base created in an interactive and user friendly manner. The IESI Knowledge base is composed of: 1) an Online Application publicly available that can be used by anyone to suggest initiatives as candidates for the inventory by filling in a simple and short survey questionnaire; and 2) an online knowledge management platform for data gathering which includes 'dashboard' and basic analysis functionalities. Access to this platform and the related IESI knowledge database is password protected¹¹³ and currently restricted to the IESI research team at JRC-IPTS and official collaborators. EC colleagues and representatives of key stakeholders are given observer roles, however, and in the future, it is planned to make the database available to the general public. This will allow researchers, practitioners and policy makers to access the data and further contribute to the development of evidence-based practices in the field under investigation. To this end, additional more advanced functionalities will be added to the IESI knowledge base in 2016. Furthermore, if deemed necessary, a broader development plan will be defined to make it an official repository and knowledge base to support the SIP implementation up to 2020.

The development of the IESI web application and online database, and the structured approach designed by the IESI research team of the JRC-IPTS in 2015, took advantage of the exploratory work conducted in 2014. Lessons were learned from the challenges encountered. A process of **community building** started in September 2014 and a communication campaign was launched in the first half of 2015 in collaboration with The Young Foundation and other key stakeholders.

All these steps have allowed us to reach out to a **large audience of practitioners and researchers active in the field**. This has facilitated the identification of initiatives in a greater variety of countries and PSSGI. The increased engagement of case owners and representatives of networks of stakeholders has also helped us include organisations

¹¹³ Secured through ECAS, the European Commission Authentication Service.

such as the European Social Network (ESN), EUROCITIES, Telecentre Europe, or the European institute of Public Administration (EIPA). These are just a few of the most active among a total of over 70 organisations which provided IESI researchers with evidence and insights into ICT-enabled social innovation initiatives across the EU.

The online IESI community building, along with traditional consultations with experts, stakeholders and policy-makers in different scientific and policy events, also served to **raise the interest in the opportunities offered by ICT-enabled social innovation**. It has been put forward as a means of addressing the pressing EU policy goals in the light of current societal challenges, such as the modernisation of social protection systems. This also increased stakeholders' awareness of the need to strengthen capacities and knowledge in the area of impact evaluation for evidence-based policy-making. In the field under investigation, the **lack of systematic monitoring and assessment of interventions hampers the possibility of proving that an initiative has been successful**. Being able to demonstrate the effects of initiatives and the factors that affect impacts would facilitate scalability, replicability or transferability of practices and policies throughout Europe.

We now focus on the main dimensions of the IESI conceptual framework presented in what we have defined as **the IESI 'Knowledge Map'** (Misuraca et al., 2015b). The map for 2015, as mentioned above, follows the dynamic approach of the research, which 'constructs the sample over time' to include both initiatives mapped in 2014 (n=70) and 2015 (n=140). The 2015 map **shows that many of the initiatives (65) present a disruptive ICT-enabled innovation potential and are implemented at an inter-sectoral level of governance of service integration**. Most of these initiatives are led by the third sector, followed by the public sector and multi-sector partnerships. Private sector-driven initiatives, however, are a minority in this group of initiatives. The second sizeable group (35 initiatives) is also characterised by an inter-sectoral level of governance of service integration, but in conjunction with sustained ICT-enabled innovation potential. **Most of these initiatives are driven by multi-sector partnerships or public sector organisations**, a small number are led by the third sector and a very few are led by the private sector. A third significant group (18 initiatives) has radical ICT-enabled innovation potential, which is also positioned in the inter-sectoral level of governance of service integration. A similar pattern, in terms of which sector drives these initiatives, to the one found in the first group can be identified: most of them are led by the third sector, followed by the public sector, multi-sector partnerships and private sector-driven initiatives.

The findings from the 2015 Knowledge Map show that **it seems to be at the inter-sectoral level of governance of service integration that 'things happen'**. Moreover, while third sector organisations appear to be leading when it comes to disruptive and radical ICT-enabled social innovation, **the public sector and multi-sector partnerships are key for achieving sustained/organisational ICT-enabled change**. Clearly a more detailed analysis is required to better understand emerging patterns, drivers and barriers in various groups of initiatives, according to specific PSSGI, policy objectives or target groups addressed, and different governance models and domains of operations. For this purpose, the dataset has also been analysed thematically. The importance, across different welfare clusters of initiatives driven by social enterprises and policy actions targeting groups of people that are particularly important from a social investment perspective have been highlighted. Specific attention is paid to initiatives for the active inclusion of young people and active and healthy ageing and long term care for older people.

Based on our sample, initiatives where social enterprises play a key role present higher levels of both ICT-enabled innovation potential and social innovation than initiatives that do not involve social enterprises. This is mainly due to the deeper integration of services achieved and to the higher number and diversity of partnerships in place. In addition, **social enterprises play an important role in facilitating access and take-up of services, particularly by hard-to-reach groups of beneficiaries**. Finally, thanks to

their capacity for mobilising volunteer work and their entrepreneurial approach, social enterprises also contribute to the objective of making our social protection systems more cost effective. From this point of view, **encouraging collaboration between the public sector and social enterprises for the delivery of public services, and promoting the creation of an ecosystem where social enterprises can thrive, would certainly be beneficial.** It would take advantage of ICT-enabled social innovation for the modernisation of EU social protection systems and the adoption of a social investment approach.

The thematic analysis of ICT-enabled social innovation initiatives that address the active inclusion of young people underlines the fact that these are mainly need-driven solutions. They aim to provide young people with opportunities for education and training, and services that help them get jobs and allow them to be more actively included in society. This is especially true for those young people from disadvantaged backgrounds or who are at risk of poverty or social exclusion. Most of the initiatives analysed have disruptive social innovation potential. In most cases, **ICTs play a fundamental role in service delivery, contributing to establishing new mechanisms for reaching out to and serving young people.** These services can be in the field of e-learning, collaborative platforms for employability or employment, or radically innovative technological solutions for social inclusion of people with intellectual disabilities.

In terms of levels of governance of service integration, it is clear that they impinge on the priority for social services delivery reform. ICT-enabled social innovation contributes to this process by facilitating inter-sectoral integration of services and collaborative partnerships for service delivery, by engaging community-based organisations and the voluntary sector in working with the public sector. Concerning the social investment model and the objectives of the SIP, it is also evident that **when it comes to youth inclusion, there is a clear pattern of investing in social capital and developing skills for the youngsters to become independent, autonomous and self-reliant.** In fact, most of the initiatives have a strong focus on empowerment and social inclusion. Their secondary policy objective is often to lower social expenditure levels. Thus, they contribute to the modernisation of social protection systems in the EU Member States.

And finally, in the area of active and healthy ageing and long-term care, the most important result is that ICTs seem to show real potential in the realisation of the policy goals defined by the SIP. They have demonstrated that **ICTs have considerable transformational power to improve traditional ways of providing care, or even to address as yet unmet or emerging needs.** Analysis has showed that **ICT-enabled social innovation initiatives could improve service delivery processes by making them cost-effective, higher quality, and better tailored to the needs of users.** Indeed, they could enhance the well-being and quality of life of older end-users, making them more empowered and involved. An important aspect is that the inter-related themes of the broader AHA & LTC policy area are echoed in the service provision as they often address more policy goals belonging to different themes. Specific analysis of policies on the theme of prevention, health promotion and rehabilitation has found that **ICT-enabled social innovation could contribute to lifestyle changes for older people and to capacity building to manage their frailties.** This could include better integration into a social network, an all-important way of keeping ageing and older people active. These networks would also supply them with social capital that could be converted into social support when needed. However, further efforts are needed to identify ICT-enabled initiatives on the topic of rehabilitation in the next round of data collection.

7.2 Exploring the systemic effect of ICT-enabled social innovation in relation to EU welfare models

It should be emphasised that, building on the results of the first phase of the research, **the mapping exercise in 2015 aimed to gather initiatives that have a more 'systemic effect'**. In line with the aspirations of the IESI research to provide insights into how to modernise social protection systems, the aim was to find initiatives that provide useful examples of social policy reforms. However, this proved to be extremely difficult. Although the share of systemic initiatives is also sizeable and **'Systems' account for 17%** of the entire mapped sample, the IESI repository of ICT-enabled social innovation initiatives at present mainly consists of **'Services' (75%)** (n=210), and **'Policy' initiatives are limited to only 2% of the sample**. This demonstrates the fact that **though the phenomenon of ICT-enabled social innovation is mainly emerging at the crossroads between sectors, it does not seem to flourish unless the public sector plays a catalysing role**. It does not seem, as yet, to be part of mainstream policy interventions in the field. However, if we focus our attention on the **'Systems'** type, this mainly consists of **large-scale initiatives with high levels of services integration. These initiatives aim to modernise EU social protection systems, by making them more efficient, person-centred and integrated**. National one-stop-shops for services, where PSSGI are accessible online, and employment services' websites, which can match the offer of and the demand for jobs and help job-seekers through training and counselling, are typical examples of this growing group of initiatives. They can be found in most of the EU countries, independently from their welfare systems and governance models of service delivery.

As regards the scale of implementation, **the majority of initiatives have been implemented within a single country: 46% on a national scale**. Two-fifths of all the initiatives have been implemented at a sub-national level: **24% on a regional level, and 16% on a local level**. Around 14% of the sample are multinational collaborations.

In this respect, it should be recalled that one of the main gaps identified in the first IESI mapping exercise was the *'lack of references to different welfare system typologies and their influence on the presence and characteristics of ICT-enabled social innovation initiatives promoting social investment through integrated approaches to social services delivery across the EU'* (Misuraca et al. 2015b). To address this gap, two dedicated support studies have been commissioned by JRC-IPTS in order to prepare the ground for the second 'round' of Mapping and are currently being finalised. However, based on their preliminary findings, and building on (Esping-Andersen 1990), (Sapir 2006) and (Hemerijck 2013), **for the purpose of the mapping and analysis conducted as part of the IESI research, the 28 EU Member States have been regrouped in five groups according to the main characteristics of their social protection systems (i.e. 1. Nordic; 2. Anglo-Saxon; 3. Continental; 4. Mediterranean; 5. Central-Eastern)**. For each 'cluster', a brief analysis from the perspective of social investment policies implementation and the role of the third sector organisations (which are considered important players in reforming social services delivery and enabling social policy innovation) and their level of ICTs development was performed. This was done to 'contextualise' the findings of the IESI mapping and the analysis serves to inform further research, to be implemented in the next round of mapping and through in-depth analysis of case studies and thematic focus studies.

In fact, because of the importance of the systemic problems afflicting European social systems and the pressing need to modernise the social protection architecture, **the quantitative analysis of the sample of initiatives mapped - though not representative nor significant in statistical terms - looks at them through the lens of the welfare state regimes**. In this respect, it is important to underline that in most mapped initiatives (31%) a single country, the UK, is involved, even though - overall - the distribution between welfare systems is well balanced. This could skew the results, since country-specific conditions such as ICT literacy levels or national

regulations and taxation rules have an impact on other types of analysis (e.g. comparing inter-governmental and inter-sectoral governance of partnerships).

It should be underlined that the findings are tentative. Further analysis conducted as part of complementary studies may contribute to a better understanding of the link between welfare typologies and density/characteristics of ICT-enabled social innovation initiatives. **Further research would be needed to show how initiatives could support the endeavour of reforming social policy throughout the EU Member States.** However, some insights can already be taken from the analysis of the database mapped in 2015. For example, several interesting hypotheses on how welfare structures and ICT deployment levels might relate to ICT-enabled social innovation can be made by analysing the initiatives comparatively by welfare typology (i.e. each welfare cluster contains only initiatives operating exclusively within the borders of that welfare cluster). From the analysis of different welfare system typologies and their possible influence on the presence and characteristics of the selected ICT-enabled social innovation initiatives, it emerges that ICT-enabled social innovation initiatives and impact evaluations are widely available in Anglo-Saxon and Nordic countries (34% and 18% of the initiatives respectively). There is also a strong presence of initiatives from Central-Eastern Europe (23%), mainly due to the selection operated by the researchers in the 2015 exercise to address a gap identified in the 2014 dataset. The same discourse applies to Mediterranean and Continental welfare clusters, where the scarcity of evidence for certain countries (and namely Cyprus, Greece, Luxembourg, Portugal and Malta) have caused a further shrinking of the sample compared to the countries' size.

Clearly, it is a considerable challenge in itself to understand just how many complex ways there are in which a welfare system-context could influence an initiative. This challenge is further complicated if the area of operation of an initiative spans more than one welfare state. In fact, although **most of the initiatives (91%) in the sample (n=194) operate within a single EU welfare system, 9% of them operate across multiple EU-welfare systems.** This means that, due to the presence of numerous cross-border initiatives, in those 194 initiatives altogether 1.2 welfare states were represented within each on average. Thus, the 18 cross-welfare initiatives have been removed from the sample, leaving a total of 176 initiatives. Of these, 27 initiatives are for Nordic countries, 30 for Mediterranean countries, 35 for Continental countries, 33 for Central & Eastern Europe and 51 for Anglo-Saxon countries (n=176).

Clearly, this analysis is only preliminary, as it is impossible to establish any direct link between welfare typologies and density/characteristics of ICT-enabled social innovation initiatives. However, from the analysis of data, it seems clear that **primary areas of activities and policy priorities differ widely across welfare typologies, even though certain categories of beneficiaries, and especially young people, are a priority all across Europe.**

Looking at the different welfare models, the following considerations can be made, based on the analysis of the sample of initiatives gathered:

- **Nordic countries** are characterised by high levels of investment and have a broad variety of local, regional and national ICT-enabled social innovation initiatives, mostly started between 2006 and 2010.
- A similar situation can be found in the **Anglo-Saxon cluster**, where there are particularly high shares of labour intensive initiatives. However, levels of investment are slightly lower, though the gap between the number of initiatives started in 2006-2010 and after 2010 is smaller than it is in both Nordic and Central countries. This suggests that investment has been higher in the last few years.
- **Mediterranean countries** are characterised by relatively low investment levels. The large number of labour-intensive initiatives in the sub-sample, and the fact that many initiatives have been on-going for over a decade may suggest a reduction of investments into ICT-enabled social innovation over time. Initiatives at the local and

regional level account for around the 50% of the sample, and international initiatives are more important in this group than they are in any other.

- **Continental countries** are characterised by the largest share of national initiatives, which are often well-funded and labour intensive. However, local and regional initiatives and small-scale initiatives are also wide-spread.
- In **Central and Eastern Europe**, initiatives are more recent, and mostly implemented at the national level. However, it was also possible to identify smaller initiatives at the local and regional level, often implemented by small teams with very limited investment.

Interestingly, **high levels of social innovation seem to contribute to the global strength of the initiatives more than high levels of ICT-enabled innovation**. This is confirmed not only by the high number of strong initiatives found in Nordic and Anglo-Saxon countries and by the relatively low number of strong initiatives in the Central and Eastern European samples, but by the surprisingly high number of strong initiatives in the Mediterranean cluster. **This may be because social innovation is a powerful means of achieving integration of services across levels and types of governments**. It facilitates partnerships with private service providers and addresses three of the most widespread policy objectives targeted by the initiatives in the sample, i.e. increasing access and take-up of services; improving their quality; and reaching out to the most disadvantaged.

If we look at the whole sample, initiatives led by the third sector tend to present higher levels of ICT-enabled social innovation. If, on the other hand, we look at welfare typologies and at how strength of evidence of impact achieved and levels of ICT-enabled social innovation relate, we note that countries where the public sector plays a leading role tend to perform better. This may be because **the public sector plays a proactive role in catalysing relevant public, private and third sector partners**. This could be the main driver of ICT-enabled social innovation, which neither private nor third sector partners can achieve on their own or with only limited involvement of mainstream public service providers. This would also explain why Nordic countries perform better when it comes to adopting a Social Investment perspective (European Commission, 2013a). (Jenson, 2012) points out that, in these countries: *the responsibility mix of social citizenship regimes is well balanced, with a universalistic public sector investing in human capital and collaborative third and private sectors innovating along with the state and citizens*.

To sum up, **the analysis of the IESI mapped database 2015, although not conclusive, set the basis for further research. This should address the need for 'contextualisation' of the analysis in different welfare systems and social services delivery models**, as identified in the first phase of the IESI research (Misuraca et al., 2015) and advocated by several experts, including peer-reviewers, and stakeholder representatives.

In order to address this gap and at the same time further validate the proposed conceptual and analytical framework that underpins the IESI research, it was underlined that there is a need to apply it to a larger set of initiatives. In addition, the findings and implications with regard to the various characteristics and *modus operandi* of countries belonging to different welfare systems should be discussed. To this end, **the 2015 mapping makes it possible to apply the IESI framework to a more robust set of initiatives (n=210), which are illustrative of all EU28 Member States and PSSGI**. It also makes it possible to discuss the possible implications that derive from the different welfare regimes in which initiatives operate. At the same time, **the IESI conceptual and analytical framework designed in 2014 (Misuraca et al., 2015b) has been revisited**. Possible interesting relationships between the specific dimensions of the IESI framework, which were only partially addressed in its original conceptualisation, have been considered and linked with existing theories and studies.

The strengthening of the IESI conceptual framework and the extension of its analytical component revolve around the deepening and operationalisation of the core dimensions of the analysis. This includes taking into account the **emerging debate on 'innovation cascades' to better capture the complexity of social systems dynamics** (Lane et al., 2013). In addition, the IESI analytical framework has been extended in order to assess – as far as data availability allows – the **network effects generated by the initiatives in order to better understand the systemic effects produced**. At the same time, it is proposed to consider exploring how ICT-enabled social innovation initiatives may contribute increasing social well-being and quality of life for disadvantaged groups in society, as well as, in return, increasing wealth of society as a whole, through **studying substitution and welfare effects**, and analysing the contribution these could provide to specific efforts of modernisation of social protection systems through in-depth case studies and 'scenarios of use'.

In a similar vein, two further variables have been introduced into the 2015 mapping exercise as a result of the review of first years' methodology. These help us to approximate the **'level of maturity' in terms of 1) the overall level of ICT-enabled social innovation potential; and 2) 'strength of evidence' on the policy-relevant outcomes from the point of view of methodological rigour**.

This analysis serves primarily to inform further research (to be implemented in the next round of mapping and through in-depth analysis of case studies). Of course, no causation between variables can be implied while lurking variables influence conditional distributions without being captured as part of the study. **However, correlating the strength of ICT-enabled social innovation and the initiative leader's sector indicates an interesting interaction**. In the sub-sample of the 2015 mapped initiatives (n=140), there are 55 public-led initiatives, 8 private sector-led initiatives, 58 third sector-led initiatives and 19 multi-stakeholder partnerships. Though the sample of private sector-led initiatives is too narrow to make any assumption, looking at the strength of ICT-enabled social innovation for each sub-group it seems that **third sector-led initiatives and multi-stakeholder partnerships do indeed present higher levels of social innovation**. The public-sector driven interventions may be associated with the growing efforts in social policy reforms and innovation in the public sector. These considerations seem to be confirmed by the analysis of the entire sample of mapped initiatives (n=210) where it appears clear that **the phenomenon of ICT-enabled social innovation is emerging across the entire EU**. In particular, it is becoming established in major EU countries in Southern, Continental and Northern Europe.

7.3 Policy implications and future research directions

7.3.1 Policy implications

The IESI research set out explicitly to support the implementation of the Social Investment Package (SIP), launched by the European Commission in February 2013. It collected and analysed evidence-based initiatives to better understand the potential of ICT-enabled social innovation to strengthen integrated approaches to social services delivery. The ultimate aim of the study is to provide concrete examples of successful initiatives that introduce innovations in social policy design and social services delivery. Thus, **it contributes to the current debate on the modernisation of European social protection systems, and provides well-documented initiatives, which could be scaled-up, replicated or transferred across the EU**.

The Social Investment Package was launched by the Commission to help with *'reorienting Member States' policies towards social investment where needed, with a view to ensuring the adequacy and sustainability of social systems (...)* (European Commission, 2013b). While acknowledging the key role played in Europe by welfare systems in ensuring inclusive growth, and their stabilisation function in times of financial and economic hardship, the Commission also recognises that an extra-effort is required to meet citizens' needs while ensuring fiscal sustainability and competitiveness.

As well as the financial crisis, Europe faces other unprecedented challenges. Globalisation, migratory flows, new family structures and technological advances have radically changed the labour market, while the needs of an aging population challenge the medium-term sustainability of our economies. In order to turn these challenges into opportunities, **it is necessary to modernise EU social protection systems, expanding the social investment dimension of social spending.** It is the belief of the Commission that *'well-designed welfare systems combining a strong social investment dimension with the other two functions, protection and stabilisation, increase the effectiveness and efficiency of social policies, whilst ensuring continued support for a fairer and more inclusive society'* (European Commission, 2013b).

In his political guidelines for the current European Commission, the then-candidate President Jean-Claude Juncker made it clear that his first priority was strengthening Europe's competitiveness and stimulating investment for the purposes of job creation. This means **looking at economic and social policy as two sides of the same coin.** As remarked by EU Commissioner Thyssen: *'employment and social policies need to be much more present in the European semester (...) Deepening the ongoing reforms in our Member States is necessary; but this requires more attention to fairness and sustainability of reforms'* (Thyssen 2014). As further elaborated by EU Commissioner Katainen in his parliamentary hearing: *'the outgoing Commission put forward a Communication on strengthening the social dimension of the European Monetary Union. We would continue to develop our evidence base through the employment and social scoreboard, enhance our co-operation with national parliaments, social partners and all relevant stakeholders to ensure ownership and delivery'* (Katainen, 2014).

In this context, the priorities set by the Barroso Commission in its Social Investment Package seem particularly relevant. **Modernising EU welfare systems to make them more sustainable, and investing in people's current and future capacities throughout their lives while maintaining adequate levels of social protection is fundamental for the achievement of the ambitious social targets set by the Europe 2020 Strategy** and to reignite long-term growth in Europe.

The social investment approach, which has been championed at EU level since the Dutch presidency of 1997, and has informed both the Lisbon Strategy and the Europe 2020 Strategy, relies on two distinct justifications. First, social investment is linked not only to social justice, but also to economic growth, and secondly, it is more cost effective due to its preventative nature.¹¹⁴ As remarked by (Lipparini et al., 2015) *'since the pioneering European Commission report on The Cost of non-social policy (Fouarge, 2008), scholars and practitioners across the world have collected highly compelling evidence which shows the enormous costs of late policy interventions, as compared to preventive and early interventions across citizens' life course. Early identification of social risks and early action targeted on the more vulnerable groups contribute to providing citizens with the tools necessary to successfully face the most common social risks (such as atypical employment, long-term unemployment, working poverty, family instability and poor or obsolete skills).'*

Social investment is therefore efficient both in terms of economic growth (increased tax revenues deriving from a more competitive economy sustained by a healthy and skilled workforce), **and in terms of savings deriving from reduced need for future corrective interventions** (European Commission, 2013a). Even though the economic value of social investment has not been studied systematically so far, the body of empirical and theoretical evidence has been growing over the last few decades.

¹¹⁴ (Hemerijck 2012) comments that *'extensive comparative empirical research has since the turn of the century revealed that there is no trade-off between macro-economic performance and the size of the welfare state'*. On the contrary, Scandinavian countries' performance in the last decades show the positive correlation between a large public sector, high rates of employment, high fertility rates, reduced poverty and general economic competitiveness.

This shows mainly the effects at the micro level and their relationships, through a meso-societal process of knowledge acquisition and technological transfer, with broader macro-economic effects and policy goals which aim to better address current societal challenges of high unemployment, social inequalities and ageing population. The evidence also points to the **need to strengthen the social dimension of the European Economic and Monetary Union**, thus preventing the possible shift from an economic to a social crisis.

From a macro-economic perspective, in fact, **well-balanced welfare systems which ensure adequate social protection and social investment are necessary for long-term growth**. Unfortunately, social protection and social investment policies have not been able to neutralize rising market inequality. The recent financial crisis has only accelerated this path. The gap between rich and poor is today at its highest level in most EU countries for 30 years (Piketty, 2014) and, since the 1980s, productivity growth has not translated into a commensurate increase in incomes for the bottom 90% of earners. Europe will not leave the crisis behind unless it is able to reverse this trend, as income inequality has sizeable negative effects on economic growth (Cingano, 2014). As highlighted by a recent IMF report (Ostry, et al., 2014) inequality strongly and negatively affects not only social cohesion, but also economic growth. Tackling inequality must therefore become a priority in policy-makers' agendas all across the world.

Additionally, it must be remembered that **cuts in welfare services score very high among EU citizens main concerns**. According to a qualitative Eurobarometer survey carried out in 2009 in connection with the Well-being 2030 project led by the European Policy Centre (EPC),¹¹⁵ most respondents are very concerned about the maintenance of the European welfare state system. They fear that current level of social services - be it with regard to education, healthcare or pension benefits- will be difficult to maintain in the future. Indeed, while there are still significant differences between European countries on the definition of wellbeing, the importance of work, equality of opportunity, and of society are shared everywhere across Europe and effective public services are strongly and positively correlated to life satisfaction (Dhéret, 2011).¹¹⁶ In addition, a digital citizen survey recently carried out by (Accenture, 2015) showed that more than 67% of the European citizens interviewed believed it very important for governments to provide more services through digital channels.

In spite of the evidence that investing in welfare services, and particularly in social investment policies, is necessary to re-launch growth and ensure social cohesion, **public social expenditure is contracting in most EU countries as part of fiscal consolidation**. It must also be considered that increases in social spending have been lower in those member states more severely hit by the crisis, with some countries, like Greece, already experiencing a decline. In addition, it must be noted that cuts have mainly affected social investment policies.¹¹⁷

¹¹⁵The survey 'Qualitative Eurobarometer' was carried out in 2009 by TNS Opinion and DG Employment, using focus groups, in connection to the Well-being 2030 project, co-funded by the EPC and the European Commission to establish a strategic vision for the long-term development of social policy in Europe.

¹¹⁶ The results of a more recent poll conducted by the Centre for European Strategy Foundation in seven European countries are similar. Quality of life and good health are considered more important than material prosperity, and there is general agreement on the case for expanding social services, even if this could mean cutting expenditure in other areas. In conclusion, *'there is a yearning for the European Union to become more active in the social dimension, almost as if to compensate for the austerity, which had been prescribed in reaction to the crisis'* (Dethlefsen Knut et al. 2014).

¹¹⁷ See (Lipparini and al. 2015): 'There are different approaches to classifying social investment expenditure. For instance, (Hemerijck 2012) combines active labour market policies, childcare education, research and rehabilitation as proxies for social investment expenditure, while (Nikolai 2012) considers family and child benefits, education and active labour policies.

Fiscal consolidation cannot be Europe's main way out of the crisis. Increased social investment, as well as better coordination and integration of economic and social policies among and across Member States are also needed. It is in this context that **ICT-enabled social innovation can be understood as an opportunity to promote social investment through integrated approaches to social services delivery**. At the same time, this kind of innovation can support a great deal the modernisation of social protection systems across and between EU Member States. It is therefore suggested that **the innovative efforts emerging all across Europe should be sustained through dedicated policy interventions and funding schemes**, such as the Employment and Social Innovation Programme (EaSI). Furthermore, the intrinsic characteristics of ICT-enabled social innovation, its multi-partnership nature and the open collaborative process underlying its functioning, may be a powerful catalyst as it can serve as an instrument to attract private investment into welfare services through the establishment of new inter-sectorial governance models. It can also be a means of using available public resources more efficiently through the involvement of various stakeholders in innovative service delivery mechanisms, and a means of renewing social policies design and implementation.

Clearly, within this policy framework, the three-year **IESI research** project offers only a small contribution to addressing these complex social systems dynamics. However, the fact that it **gathers evidence-based ICT-enabled social innovation initiatives and assesses their impact in view of their concrete scaling-up, replicability and transferability across EU Member States**, makes of this exercise a powerful tool to support the implementation of the SIP.

One important aspect we need to consider when analysing cases of ICT-enabled social innovation for the implementation of the SIP is **the extraordinary variety of the 28 EU Member States in terms of welfare systems models and stakeholders involved in the provision of PSSGI**. This variety - together with the different levels of adoption of ICTs within and outside governments - **influences the quantity and quality of existent ICT-enabled social innovation initiatives**, and the possible or actual barriers and incentives to their creation and take up.

7.3.2 Future research directions

In order to investigate further the issues addressed by the analysis of the mapped database 2015, some complementary studies are being undertaken as part of the IESI research to better understand the role of ICT-enabled social innovation to promote social investment in support to the modernisation of the social protection systems in the EU.

These studies will also serve to ground the next phase of the research, both with regard to the complementary component of the IESI project, i.e. the development of a methodological framework to assess the social and economic impacts generated by ICT-enabled social innovation initiatives that promote social investment through integrated approaches to social services delivery (in short i-FRAME),¹¹⁸ and the next round of mapping and thematic analyses to be conducted in 2016.

In this regard, it is expected that **in 2016 the IESI research will collect an additional set of initiatives bringing the total inventory to 600 initiatives, including a mapped sample to be analysed of 300 relevant initiatives**. This will be complemented by a number of in-depth case studies, and thematic analyses on specific policy issues considered of particular importance.

¹¹⁸ As already mentioned in various parts of this report the i-FRAME is being developed as part of Work package 2 of the IESI research. While a draft proposal has been developed and presented in June 2015 (i-FRAME V1.0), a refined version is being developed and validated through applying it to some scenarios of use and it will be made available in the first quarter of 2016 (i-FRAME V1.5).

For these purposes, **the IESI conceptual framework will be further validated by applying it to a larger set of initiatives**. These will be **more balanced in terms of geographical coverage and social services areas addressed**. Moreover, some additional dimensions suggested in this report as possible 'extensions' of the IESI analytical framework will be operationalised to allow better understanding of the phenomenon under investigation.

The consolidated analysis of the IESI mapped database should allow us to see the evolutionary development of the phenomenon under investigation and inform policy development, specifically as regards the contribution ICT-enabled social innovation initiatives could make to promoting social investment through integrated approaches to social services delivery, and to supporting social policy innovation.

To accomplish this objective, the IESI Research Team at JRC-IPTS will benefit from the lessons learned in the previous and current rounds of mapping. A number of improvements will be made to guarantee the successful achievement of the goal. For example, a specific **communication campaign** will be designed and launched in the first half of 2016, to ensure there is enough time for gathering data from practitioners and policy-makers. Networks and key stakeholders will be encouraged to contribute to the collection of cases by offering them the chance to gain visibility at European level.

For instance, a **'IESI Prize'** may be promoted, for initiatives put forward by practitioners. The promoters of the three best initiatives (selected by an expert panel including members of JRC-IPTS and DG EMPL) could be invited to showcase the initiatives during a high level policy event. In addition to this, as already planned, **the IESI knowledge base will be made available online** in order to raise interest among practitioners and policy-makers in having their initiatives included in the IESI platform.

In addition to this, **future research will focus on targeting initiatives at the regional and local level**, especially at city level or investigating neighbourhoods within cities. The experience of the first two 'rounds' of mapping pointed to the importance of the local level, and also the difficulties inherent in the process of gathering data, especially with regard to evidence of impact.

A local focus would provide the possibility of experimenting with some of the additional dimensions proposed to deepen and enrich the IESI conceptual framework. This would consist of in-depth analysis of a selected number of **'local ICT-enabled social innovation ecosystems'** to study the dynamics across sectors, the barriers and the enabling factors for innovation and social change to be supported through appropriate policy options. This would also allow us to test in practice the theoretical and methodological framework underpinning the i-FRAME simulation model currently under development as part of the IESI research. It will be available in *beta* version in the second half of 2016.

In conclusion, following the exploratory phase of 2014, the IESI research gained full speed in 2015. **We are, however, only at the beginning of the learning journey to a better understanding of the role and impact of ICT-enabled social innovation**. Further research is needed into these innovations that promote social investment through integrated approaches to social services delivery and contribute to the modernisation of social protection systems across and between EU Member States.

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List of abbreviations and definitions

This section contains the key terminology of the IESI project adopted and developed during its first phase in 2014 for serving solely as a quick reference. Therefore, for the full elaboration on these terms and contextualisation in the literature on ICTs and social innovation please refer to the JRC Technical and Policy Report by Misuraca et al (2015b).

▪ ELEMENTS OF SOCIAL INNOVATION:

1. **Need-driven/outcome-oriented production:** outcomes are intended to meet the needs of society or specific groups in society in a long lasting way.
2. **Open process of co-creation/collaborative innovation networks:** end-users and other relevant stakeholders participate in the development, implementation and adoption of these innovations. Relevant stakeholders bring in their knowledge, information, experiences and resources so that they can be shared in order to produce innovative outcomes that are relevant to them.
3. **Fundamental change in the relationships between stakeholders:** the ways in which stakeholders relate to each other, how they interact with each other, and how they collaborate with each other are radically changed. Social innovation tries to act as a 'game changer', breaking through 'path-dependencies'. As a result of social innovation processes, it is argued that need-driven services require the establishment of new collaborative relationships and new institutional arrangements.
4. **Public value allocation and/or re-allocation:** in the achievement of these values it is not only important to look at the presumed or achieved consequences of the innovation in terms of effectiveness or efficiency. The public values pursued by social innovation also try to ensure that the innovation is an appropriate one, for instance because it adds to the value of democratic citizenship, or really addresses – in terms of responsiveness – the needs of citizens.

▪ ICT-ENABLED INNOVATION POTENTIAL

1. **Technical/incremental innovation:** use of ICTs to facilitate automation of repetitive tasks and thereby improve efficiency (e.g. automated applications for jobs, periodic alerts and health information to carers). This implies process change, such as the improvement of the quality and efficiency of internal and external business processes.
2. **Sustained/organisational innovation:** use of ICTs to support, facilitate or complement existing efforts and processes to improve organisational mechanisms of services provision (e.g. use of ICTs for job search in online employment portals). This implies change at organisational, managerial, or governance/institutional level, such as the creation of new organizational forms, the introduction of new management methods and techniques, new working methods, and new partnerships or business/financial models. Examples are the horizontal or vertical integration of organisational units / departments / services or ICT systems, or the introduction of electronic workflows for cross-organisation case management or service delivery.
3. **Disruptive/transformational innovation:** use of ICTs to initiate or improve new services or create new mechanisms for service delivery which would be impossible through non-ICT modes (e.g. use of ICTs for teleworking or for learning purposes from remote and beyond office/school hours, or the use of social networks for peer support), resulting in product or service innovation.
4. **Radical/transformational innovation:** substantial use of ICTs that takes place

outside of the recognised institutional setting and aims to radically modify the existing mechanisms of services provision (e.g. self-organised community to deliver services through social networks). This implies or leads to a paradigm shift that reframes the nature of specific problems, as well as their possible solutions. For example, when insurance physicians look at a person's work (dis)ability, they no longer analyse what people cannot do, but instead analyse what they still can do, hence focusing on work ability potential.

▪ **ICT-ENABLED SOCIAL INNOVATION:**

A new configuration or combination of social practices providing new or better answers to social protection system challenges and needs of individuals throughout their lives, which emerges from the innovative use of Information and Communication Technologies (ICTs) to establish new relationships or strengthen collaborations among stakeholders and foster open processes of co-creation and/or re-allocation of public value.

▪ **LEVELS OF GOVERNANCE OF SERVICE INTEGRATION:**

1. **Isolated.** No integration of services at administrative or strategic level with government operations.
2. **Intra-governmental integration.** Single level of government. Includes integrated case management, designing service delivery according to the needs of individuals rather than service providers; frontline integration to offer clients a 'single window'; back-office integration to provide the necessary support structures; and co-location of practitioners, services and back-office functions.
3. **Inter-governmental integration.** Collaboration across multiple levels of government. Includes database integration, coordinated case management, and joint procurement.
4. **Inter-sectoral integration.** Collaboration between government and service delivery providers in private or non-for-profit sectors. Includes joint investment strategies, co-location of staff and formal networks of service delivery organisations.
5. **Pervasive.** Service integration beyond the traditional boundaries of administrative/operational integration, embedded in a new *modus-operandi* where service providers and beneficiaries co-produce services innovating delivery mechanisms and reallocating resources and roles in order to maximise public value creation.

▪ **TYPES OF SERVICE INTEGRATION:**

1. **Funding:** e.g. pooling of funds at various levels; and pre-paid capitation at various levels.
2. **Administrative:** e.g. consolidation/decentralisation of responsibilities/functions; inter-sectoral planning; needs assessment/allocation chain; joint purchasing or commissioning.
3. **Organisational:** e.g. co-location of services; discharge and transfer agreements; inter-agency planning and/or budgeting; service affiliation or contracting; jointly managed programmes or services; strategic alliances or care networks; common ownership or mergers.
4. **Delivery system:** centralised information, referral and intake; case/care management; multidisciplinary/interdisciplinary teamwork; joint training; around-the-clock coverage.

Annex - List of ICT-enabled social innovation initiatives mapped in 2015

1. 3D Novations
2. 50 Plus Net
3. Activating daily life - programme together with technology solutions
4. AgeingWorks
5. Alavateli
6. Alko-soft
7. Alzheimer Netherlands
8. Andalusian Telecare Service
9. AspIT
10. Avitus
11. Backr
12. Balanced European Conservation Approach - ICT services for resource saving in social housing
13. Bookshare
14. Borger.dk MyPage
15. Bread and Internet
16. Bridge International Academies
17. Buurtzorg
18. Byström Youth Services
19. Care for each other
20. Career information computer
21. Career Moves
22. Caren
23. Central Information for Social Development
24. Circle
25. Citizen's Spots
26. City of Malmo - citizens engagement strategy
27. CoderDojo
28. Comet
29. Coordinating Care for Older People
30. Customer Relationship Management -
31. cyprus.gov.cy
32. Dementia Friends
33. Digital Opportunity Trust
34. Dinst - reliable services at your home
35. Dot Dot Dot

36. dotHIV
37. Dublin Region Homeless Executive
38. DYS 2.0
39. E-counselling in Slovenia
40. Eesti.ee Gateway to Estonia
41. Electronic Northern Ireland Single Assessment Tool
42. Employee insurance implementation institution (Public Employment Service)
43. Employment Service of Slovenia
44. Equinoxe - A home alarm system linked to volunteering
45. eSchool
46. Estonian e-Learning Development Centre
47. Everyday Technologies for Children with Special Needs
48. Flash Young
49. Flemish Public Employment Service
50. Foreigners' Forum
51. Geographic localisation and safe monitoring of Alzheimer patients - Geoloc
52. Getting it Right for Every Child program
53. Goteo
54. Gov.mt
55. Healthy Villages
56. Helping Homeless People Into Employment
57. HMP Peterborough Social Impact Bond
58. Home Access Programme
59. Home Emergency
60. Humanitas Mentor Buddies
61. InnoVillage
62. Integrated and psycho-social rehabilitation services
63. Integrated Care Healthy Kinzigtal
64. Job Bank
65. Jumpido
66. KiBiz.web
67. KiVa
68. Know Your Own Health
69. Košice IT Valley Association
70. Labour market evidence and impact based public policies
71. Labour Market Monitor
72. latvija.lv
73. Lifelong Career Guidance Centre

74. LIFEtool - computer aided communication
75. Lithuania's e-Citizen - Windows to the Future
76. Lithuanian Labour Exchange
77. Little Bird
78. Long Live the Elderly!
79. Luovi Vocational College
80. Magnolia Place Community Initiative
81. Make it easy: a co-construction platform to modernise public services
82. Mattecentrum
83. MedCom
84. MENTE
85. Milestones of Normal Development in Early Years
86. Mobile for Good for assisted living of older people
87. Modern Education for Knowledge Society
88. Multiple Provider Employment Zones
89. My past my present
90. MychoicePad
91. MySupportBroker
92. Neighbourhood
93. Net-employment
94. Netari.fi
95. Network of Telecentres in Cantal
96. Noise Solution
97. One-stop-shops at the service of citizens
98. Open University
99. Partnerships for Older People Projects
100. Pole Emploi 2015 - 100% Web
101. Portal for flexible working
102. Pragulic
103. Pre Living Home
104. Public Counter Luxemburg
105. Puzzled By Policy
106. RIRVA NETWORK: setting up a national referral system on the Assisted Voluntary Return
107. Safety button
108. SAM:BO - Cooperation on care pathways in Southern Denmark
109. Saving Energy in Social Housing with ICT
110. Scottish Patients at Risk of Readmission and Admission

111. SenioriNET - NGO network that offers services for elderly people
112. Sheffield Community Network
113. Snoezelen
114. Social Innovation Relay
115. SocialXChange - more than a charity shop
116. Sotiria Hospital eHealth Unit
117. South Karelia District of Social and Health Services
118. Successful internships, a win-win for companies and students
119. Superhands
120. Supporting elderly care givers in Vasternorrland County
121. Symbiosis between generations
122. Tackling homeless in Odense
123. Telematization of services
124. Teletask Info Service
125. The Compass of Transparency
126. The development of the professional activities for the people with disabilities in Mazovia
127. The Electronic Sick Notes and Maternity Leave Certificates Management application system
128. The Esther Network
129. The Multi Company Mobility Centre - Experience@Work
130. The Reform of the Polish Public Employment Service
131. The Specialists
132. The States of Jersey's Adult Social Care Program
133. Third Space Learning
134. Virtual Labour Market Portal
135. Virtual Private Network
136. VITAEVER
137. Voldix-Galicia's Digital Volunteering Programme
138. Wellogram
139. Where is my public servant
140. Your Teacher

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Stimulating innovation
Supporting legislation*

